

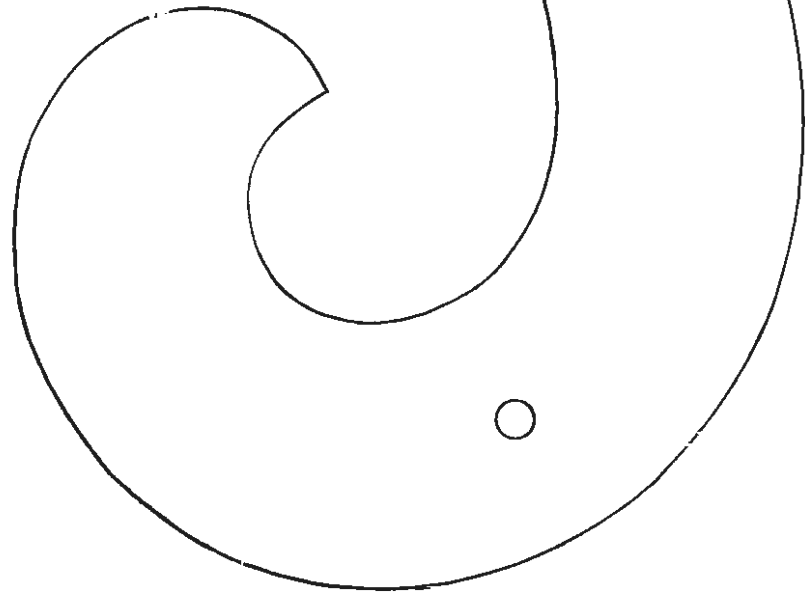
Practical Dress Design

Principles of Fitting and Pattern Making

REVISED EDITION

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Preface

Practical Dress Design is intended primarily as a text for college classes in pattern making and dress designing. In its earliest manual form and later as a textbook it has been used extensively by designers in both garment and pattern companies. It gives practical assistance in obtaining better fitting garments and clothes with more individuality than the ready-mades most people can afford.

Pattern designing falls naturally into three divisions: (1) manipulating the basic darts; (2) introducing or changing style lines and fullness; (3) adding extensions such as overlaps, collars, facings, bows, and belts. It is logical to begin with the first, but psychologically it is easier for beginners to reverse the procedure. By the time college students have had a year's clothing course, they have had more or less experience in the latter two areas with the first groups of learnings practically untouched.

It is observable that most adult groups as well as college students who have had good basic clothing construction do not understand the principles of fitting. *Practical Dress Design* endeavors to classify fitting problems into a few similar types and to solve the problems by principles basic both to fitting and dress design. With little intellectual ability one could cut cloth into many pieces and rejoin them again into a flat piece like a quilt or jigsaw puzzle. But dress design involves the third dimension of depth which is not at all regular in amount and which in addition is round, not square.

This book is restricted to flat pattern designing in which a flat piece of paper is manipulated by darts into a shaped garment to fit a woman's figure that is curved and rounded. The method given is one that can be mastered without special instruction in drawing or mathematics and with very few tools. However, though the method is simple, the student is urged to be exact and neat in workmanship. Experience in handling patterns and making dresses is presupposed. Of very great assistance and importance is previous training in basic design or applied art. A knowledge of textiles is invaluable. A lively interest in fashion, current events, and the contributions to dress from the different historical periods will provide enthusiasm and inspiration for the intriguing differences in cut that are the essence of modern dress design. A due regard for yardage and cost, both of fabric and labor, is certainly involved.

Even though one may not be interested in the unusual or in so-called originality of dress, it is essentially worth while to be able to modify a ready-made pattern or to create simple accessories or to fit clothes for oneself or for others. Teachers of clothing in high schools, colleges, and adult classes need the basic ability that comes only from a knowledge of the principles of fitting and simple dress design, which in turn develop from the techniques of dart manipulation.

Illustrators for fashion advertising sketch the human figure with stylized versions of garments already made. Fashion originators may sketch garments and details of garments as working drawings for the workroom. A pattern designer may use these drawings or a verbal idea from a superior, or she may be the originator of a dress design and never use a small sketch. It helps to be able to make small fashion sketches, but it is not necessary. Many ideas on paper do not work out well on life-size patterns. Small-scale drawings seldom can be followed in toto. The real designing is done on the life-size pattern, and usually for some special fabric.

In the author's classes, it has been found expedient to use a half-size dress form for beginning lessons in both fitting and pattern designing. In fitting, each student makes up a simple blouse with $\frac{1}{2}$ " seams and fits it over the model on which have been pinned shaped pieces of foam rubber or other padding to simulate square shoulders, round shoulders, full bust, or large hips.

In order to understand better the theory of the dart, it is often wise to have students begin the course with Chapters 3 and 4, before altering their own blouse patterns or having individual fittings. Transparent tracing paper should be used to copy the patterns in half-size printed here, then transferred to Manila tag board. Rerule lines before cutting. Lectures, laboratories, and demonstrations are usually based on these half-size patterns. For skirts with pleats, French-dart jacket variations, or circular skirts we even use the quarter-size patterns. For collar and sleeve lessons only the full-size individual patterns are practical.

The half-size patterns are used to save time, paper, table space; to demonstrate several variations of a pattern idea, and, carried out in fabric, to demonstrate the general practicality of an idea or cut. In reality, it takes just one fourth as much fabric as the standard size. Darts and seam lines are traced accurately and most of the sewing is done with long stitches on the machine without hand basting or sewing. But even so, proportions are best visualized on the individual or standard pattern, and many garments should be designed, cut, and carried through a second fitting to check the value of the pattern designed.

Texture and color in the final garment are all important, hence student design problems are best presented at each lesson around some real fabric in which it is to be developed. Imaginary gathers for a batiste blouse do not always develop into a satisfactory result unless some real batiste is at hand.

While in this book the major stress is placed on the techniques of pattern manipulation—where and how to cut and spread—two other skills must accompany each pattern problem: (1) using the basic design principles of proportion, harmony, rhythm, balance, and emphasis; and (2) using tools with accuracy.

The finished garment is the ultimate test of a successful pattern, which is after all a blueprint of directions for the dressmaker. A real designer will not be a very prolific one if she hasn't a reasonable skill in sewing. She need not be a perfectionist at stitching but she should be able to recognize perfection.

This book is not a text in clothing construction. Many students, because of inadequate preparation and experience, have hazy ideas about construction especially of features that currently are not in fashion. Hence, in each major problem the author has made dressmaking suggestions, especially when their understanding is needed in cutting the pattern. A student may reject an interesting design because she can't figure out how the pieces are put together. For example, a convertible collar or a pocket set in a seam are avoided by beginners because they don't see an easy way to sew them. A summary of the more basic principles of dressmaking is included in Chapter 16.

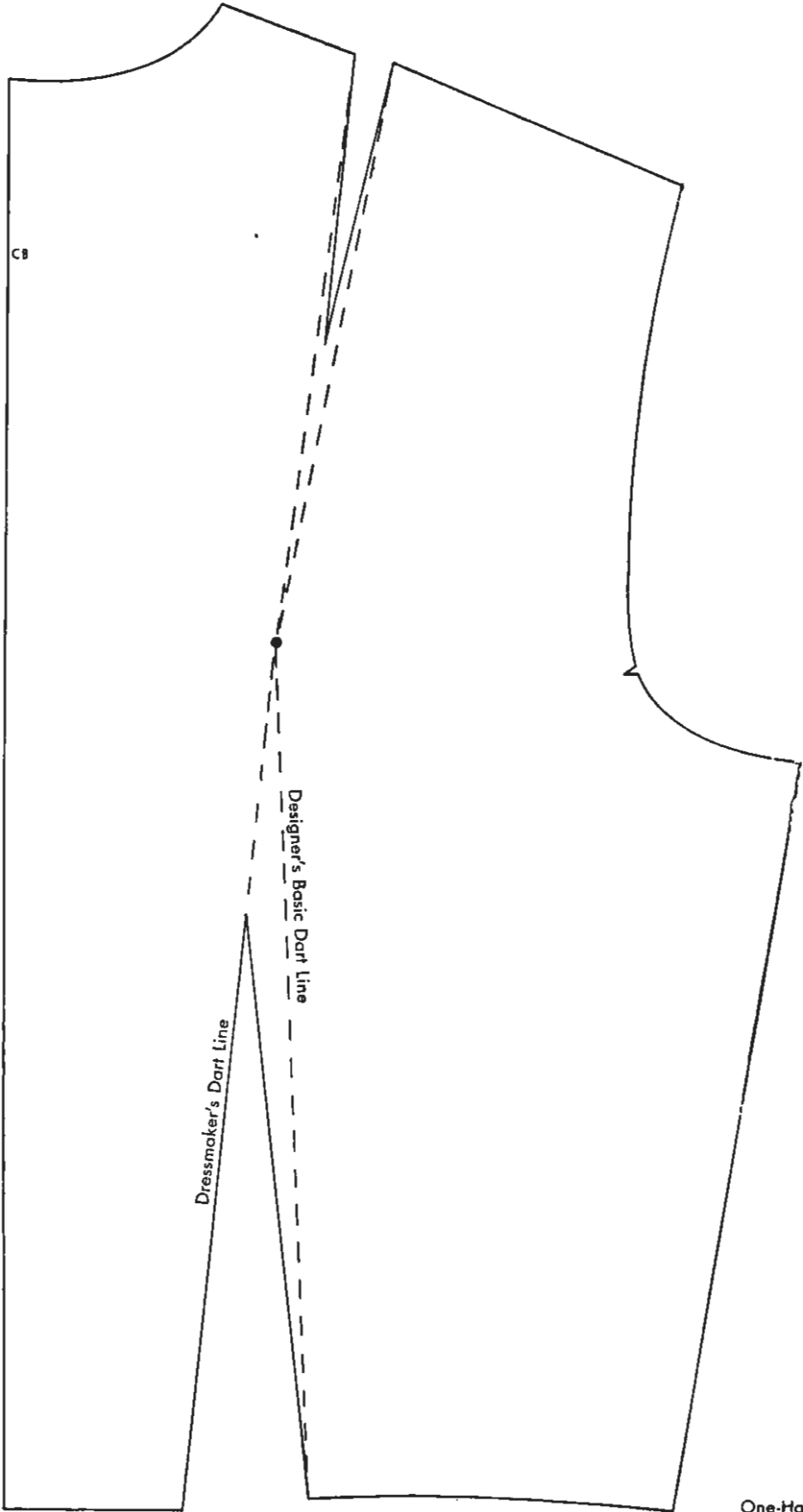
A good teacher not only knows the principles in her subject matter but requires students to recognize principles as being different from facts or skills and, furthermore, requires students to be able to formulate as well as quote major principles. A principle may be defined as a fundamental truth which has wide application, which has a cause-and-effect relationship clearly stated or obviously implied, from which other principles may be derived, and the following of which yields consistent, certain results. In stating a principle the student then must break it into two parts: (1) that which will always result (2) if a certain procedure is followed. In such skills as pattern making one will never be able to solve new fashion designs unless she understands the principles—that is, not only know the "how" but also

the "why." More words and illustrations and repetitions are needed in a book that attempts to develop principles than in one that just develops skills. Studying the text along with illustrations clarifies one's thinking. Each new problem in this book has a definite tie-up with another in an effort to get the student to see the real principle involved. It is often difficult to get students to really try to learn the "hang" of a thing, i.e., the principle involved, when they are more concerned with the immediate product, a new dress. The book and the teacher must constantly call attention to the fact that the present project of an apparently new skill is practically the same as one of last week—just a different application.

Most of the patterns and garments illustrated in the revised manual have been successfully executed in the author's laboratory classes. Like any other craft you will experience satisfaction in proportion to the depth and breadth of your own efforts. There has been entirely too much glamour and mystery about dress designing. It is neither a secret nor a talent for a few, nor is it too difficult, but it is demanding of your intellect and craftsmanship, challenging, financially rewarding, and creatively satisfying and enjoyable.

The author wishes to acknowledge the cooperation of Troy Allen Lockard, Assistant Professor of Applied Art, Texas Technological College, in refining garment sketches and inking all drawings.

Mabel D. Erwin

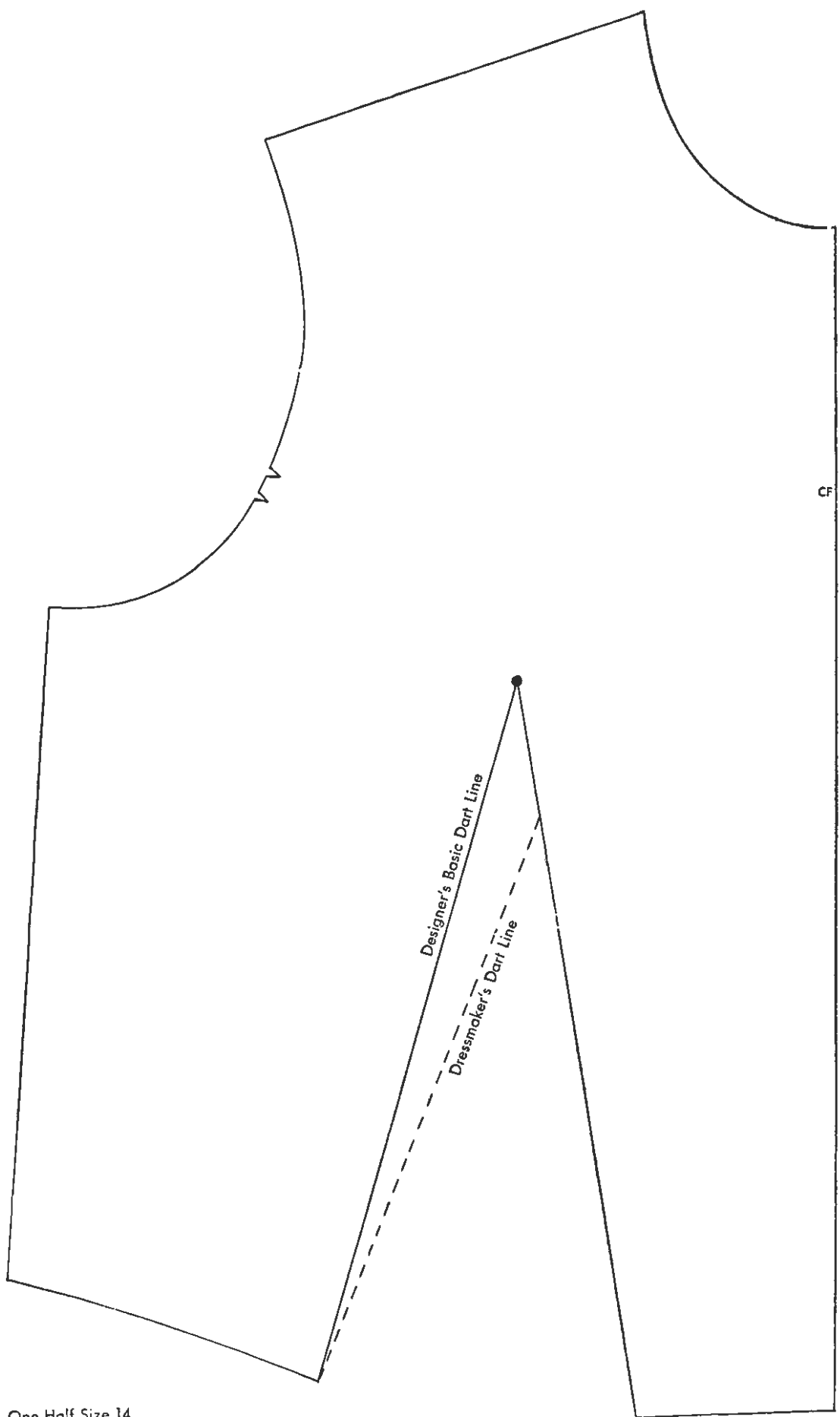


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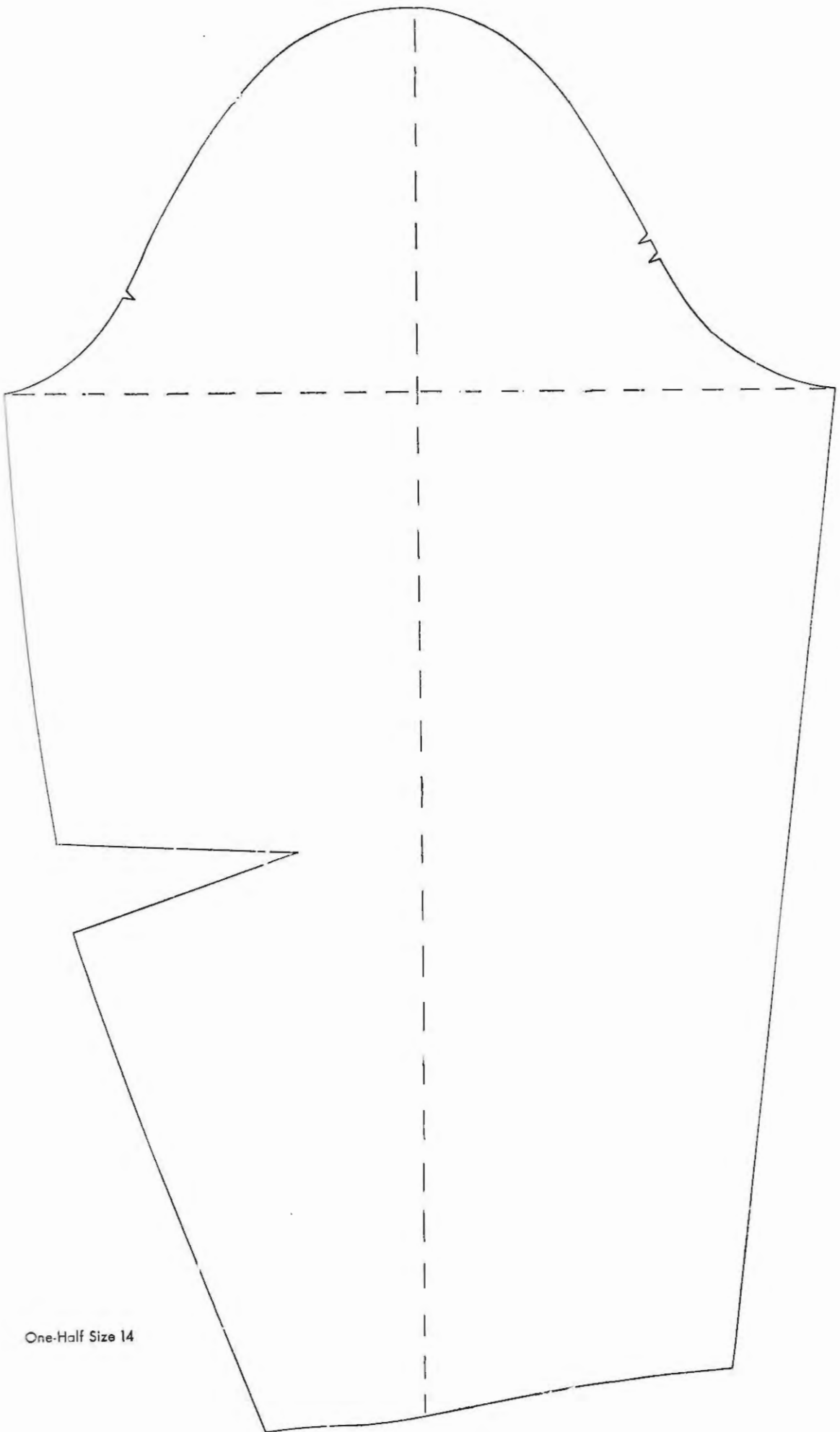
Dressmaker's Dart Line

Designer's Basic Dart Line

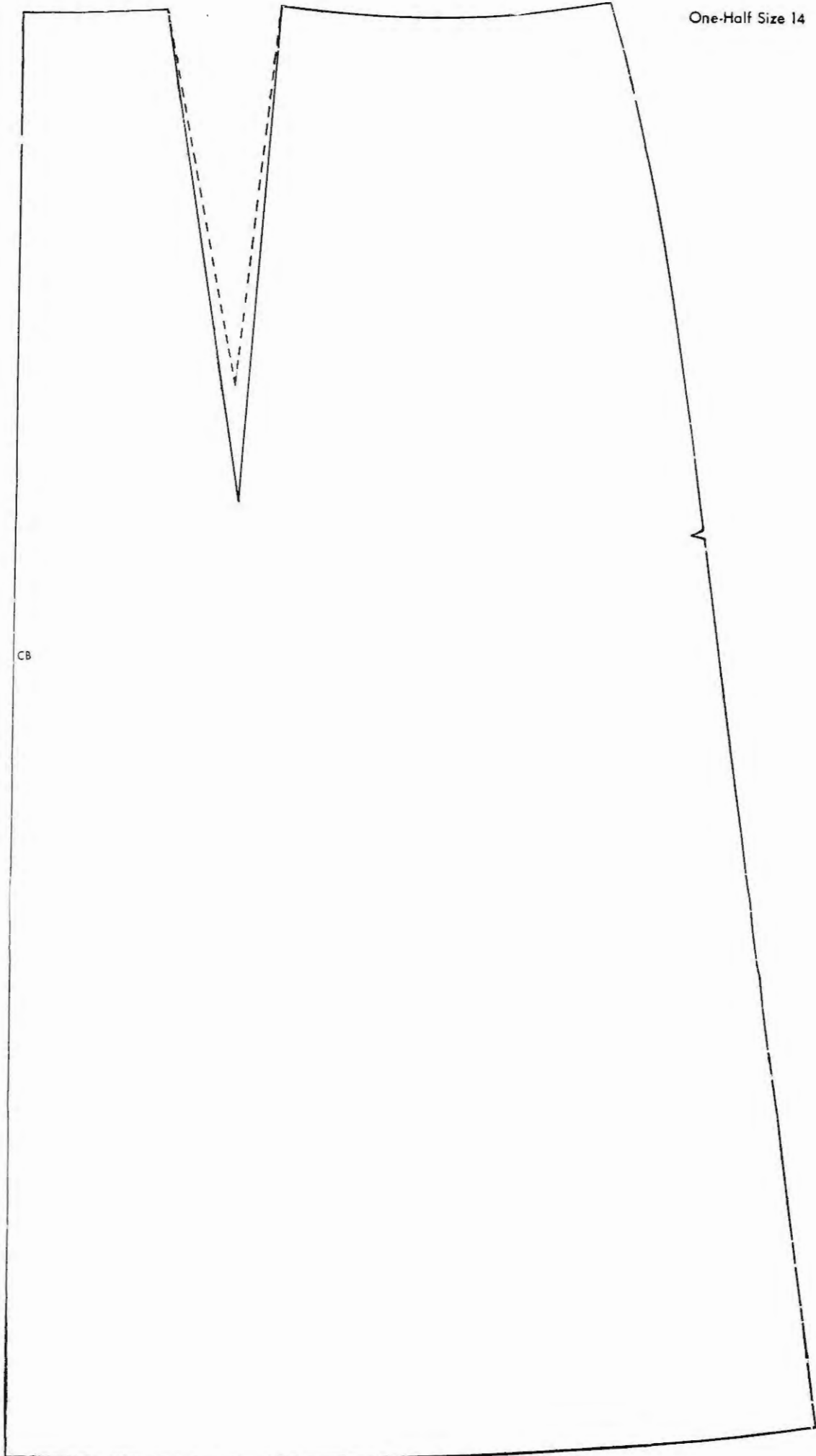
One-Half Size 14



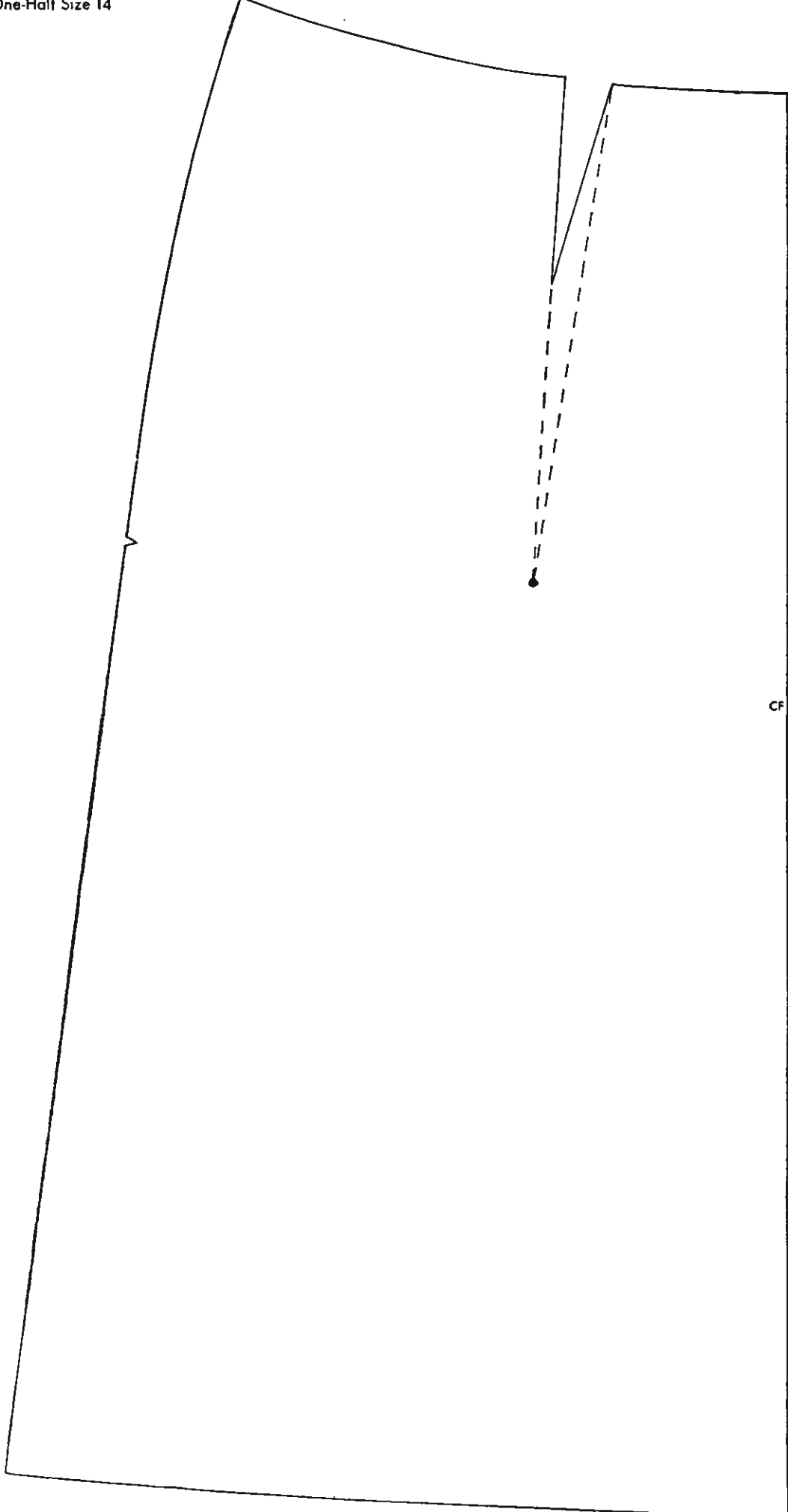
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Practical Dress Design

Chapter I

YOUR FOUNDATION PATTERN

A foundation pattern, also referred to as a block pattern, a basic pattern, a master pattern, or (in the trade) a "sloper," is a perfectly plain pattern which fits the individual and which conforms to today's silhouette. For dress designing there are five basic pieces; front blouse, back blouse, sleeve, front skirt, and back skirt. Each piece has at least one basic dart to control the extra amount of cloth needed to cover a body bulge. For simplicity in designing, no seams, hems, or extra fullness are desired in the basic pattern—these are added after the stylized pattern is completed.

In a factory, it is the responsibility of the head designer to provide an up-to-date master pattern based on the model adopted by the firm. It may be developed by draping on the model, by drafting from a set of measures, or by modifying patterns on hand. Specialists in taking body measures may easily draft patterns, but only if they are specialists can they locate points or landmarks on soft fleshy bodies with any degree of accuracy. Anthropometrists and people they have trained can take such measurements, but homemakers, students, and most dressmakers are not skilled enough in this field to create a pattern that fits one individual let alone a composite average. You, the average dressmaker, homemaker, or individual dress designer, will use a good commercial pattern nearest your size, altered and fitted to you. You may have had sufficient training to model or drape a good pattern on the dress form which corresponds to your size and shape. In securing your master pattern use the following procedure:

Making Your Own Foundation Pattern

1. Select a simple dress pattern nearest your size. Have it of five basic pieces (Fig. 1). The front blouse dart may be from shoulder or underarm but the vertical dart at waistline makes sewing and fitting easier.

2. Copy on plain paper. Alter this pattern to fit by slashing and spreading or overlapping, or by redrawing seam and dart lines. Details will be found in Chapter 2.

3. In *muslin* or *gingham*, cut out the garment, grain perfect, with $\frac{1}{2}$ " seams in armholes and neckline, 1" elsewhere. No hem is needed at bottom of skirt, but an 1" seam or hem at center front in both blouse and skirt makes it easier to dress and fit. Stay-stitch on all seam lines and dart lines. Then, baste-stitch all darts and silhouette seams to create three units—blouse, sleeve, and skirt. Pin circumferences—sleeves over armholes, and skirt over blouse; right side out, seam line on seam line lapped but not turned under. Place pins parallel with seam at waistline and under part of armhole but at right angles to seam line over upper part of armhole to divide the ease evenly.

4. Fit by changing size of darts and seam allowances. Tucks may be pinned in some areas as a guide to altering the basic pattern both for length and width. If too tight around, unpin CF seams to estimate the total amount of extra ease needed but decide on better places to provide this ease. Waistline pins may be removed to estimate amount of extra length needed in front for promi-

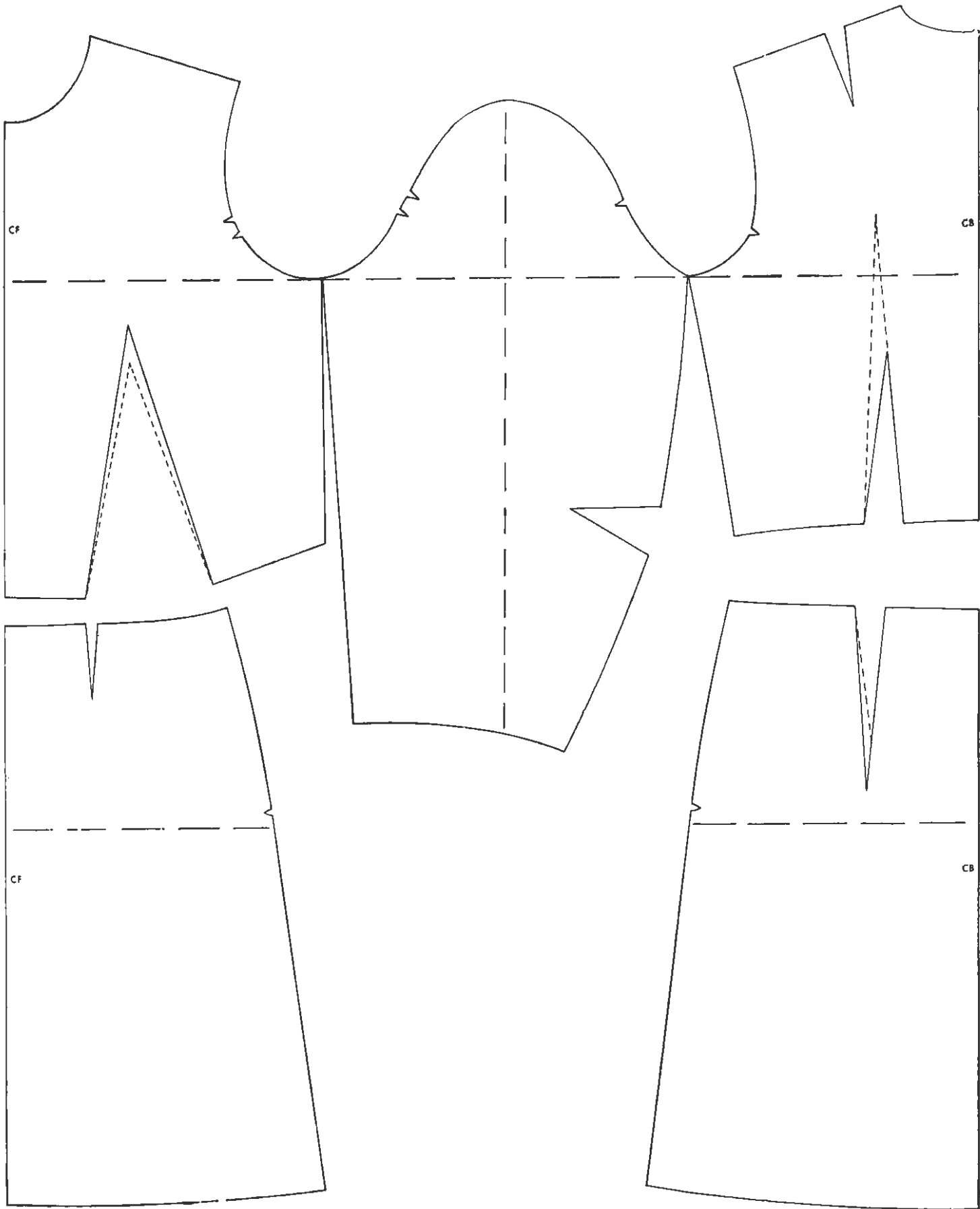


Fig. 1. Standard foundation pattern—quarter-size 14.

ment bust or in back for prominent shoulder blades. If the skirt is not level with the floor, but shorter in front or back because of prominent abdomen, side or rear hip, fit above hipline to provide extra length and width needed. Exact details for fitting garments for standard problems are illustrated in Chapter 2.

5. Correct the pattern on basis of changes just made. Correct muslin so that right and left sides are the same as pattern; restitch. Repin circumferences and have more fittings until satisfactory. At the second fitting, concentrate on sleeve and armseye. Make neckline, waistline, and wristline comfortably snug and curved to fit naturally. Have hem line a becoming length to you, in this year's fashion.

6. At last fitting, extend the basic "dressmaker" darts, which give a semicasual effect, to end exactly on the most prominent part of the bulge. These revised darts are fundamental or basic darts. This fitting will tighten the garment slightly in width and accent the point of bulge with not always a pleasing effect. Think of the shorter dart as a dressmaker dart—the effect in the final garment but the long fundamental dart as the designer's basic dart with which she works (Fig. 1). After the designer has completed the stylized pattern, the long dart will generally need to be shortened an inch or two and straight lines converted to curves more like the body for final fashion effect when stitched. Transfer the points of the basic darts to your pattern—two in back of blouse, one each in front of blouse, back of skirt, front of skirt, and elbow of sleeve.

7. Check the pattern. Use a ruler on all darts, shoulder and underarm seams, and skirt seams below the hipline. Use a curved ruler or original pattern as a guide to true curves such as those above hipline or in sleeve. A Manila tag board copy of the Dietzgen curve #17 on title page of this manual is very useful. Correct adjoining seams to be equal in length. Copy on Manila tag board or any stiff, tough paper by tracing on corrected seam line, i.e., without seams or hems. Notches should be retained only in the sleeve and armholes, and darts cut out. Then this foundation pattern or sloper can be quickly traced around to begin pattern work.

8. Save the muslin garment to use later in establishing other dart or seam locations.

9. After each use of your foundation pattern, refine lines in the light of later fittings.

10. Half-size basic patterns are printed in the preface of this book for your practice work. Quarter-size patterns are shown in Figure 1. A quarter-size French-dart sloper is shown in Figure 181.

Other Basic Patterns

Whether you develop your own French bodice or raglan pattern or rework a commercial pattern, once it is proved satisfactory save it to use as a basic pattern in developing variations in style. Save copies of your most-used patterns as basic blocks for quick changing of details. Ones generally used in each season are a shirt sleeve, a short sleeve, a kimono blouse, a dolman sleeve, a French-dart bodice, a gored skirt. Thus, it will not be necessary to develop these styles from your foundation pattern each time one is needed.

PATTERN SIZES

Successful dress designing for an individual begins with a pattern of the right size based on actual body measurements, not age. Pattern sizes, today, are fairly well standardized and should not be confused with the varying sizes in ready-made clothing. Pattern manufacturers with the aid of the national Bureau of Standards have accepted a set of measurements for each size. These standards are promulgated by the U.S. Department of Commerce and may be secured for five cents from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D. C. in pamphlet form, "Dress Patterns (Fourth Edition) Commercial Standard CS 13-44." Table I is an excerpt.

Table I

WOMEN [All measurements in inches]

Bust	34	36	38	40	42	44	46	48	50
Waist	28	30	32	34	36	38	40	42	44
Hip*	37	39	41	43	45	47	49	51	53

MISSES

Size (number)	12	14	16	18	20
Bust	30	32	34	36	38
Waist	25	26½	28	30	32
Hip*	33	35	37	39	41

* Hip measurement taken 7 inches below natural waist line.

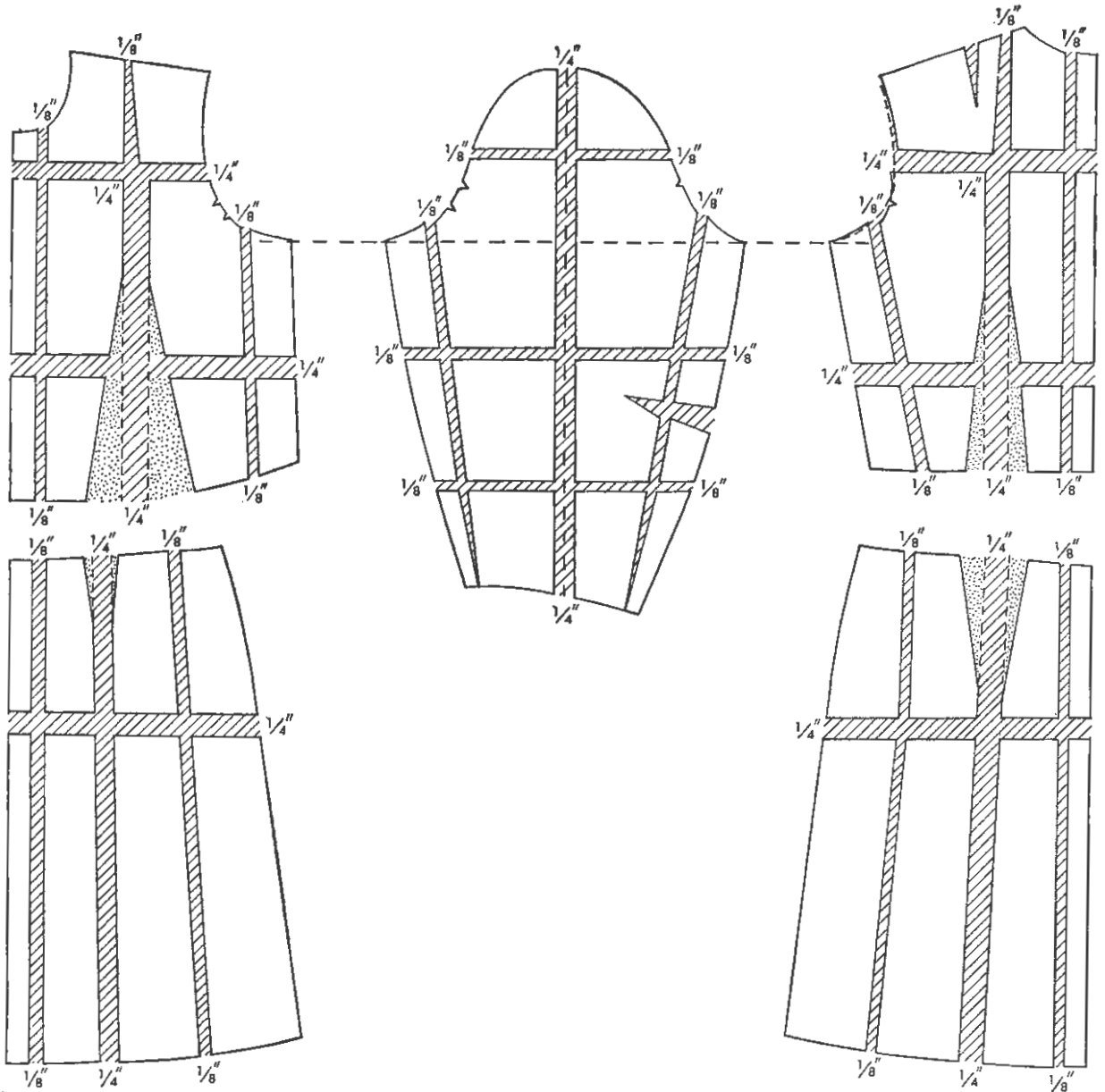


Fig. 2. Grading up one size by slashing and spreading consistently. Grading down would use tucks each half as wide as amount of decrease. Note that adjoining seams are made to match in each change. Transitional lines will need to be made on each curve (here illustrated in back armhole only because the figures are small).

Each pattern has an allowance over the basic measurements to provide ease for action. In addition each pattern company modifies the amount of ease over basic measurements to create different styles and designs. Because you cannot know the amount the pattern company has allowed, you should compare your own body measures with the measurements printed on the pattern envelope, or in the chart above, or in the fashion or counter book for bust, waist, and hip. Do not try to measure the pattern itself—a procedure which

is time consuming. Do not change the amount of ease the pattern has provided because it involves the risk of losing a great deal of the style quality created by the designer. Constantly compare your personal body measurements with the measurements the pattern company claims.

GRADING

Grading refers to the formal changing from one size to the next. The standards set up in CS 13-44 indicate an increase of 2" in total circum-

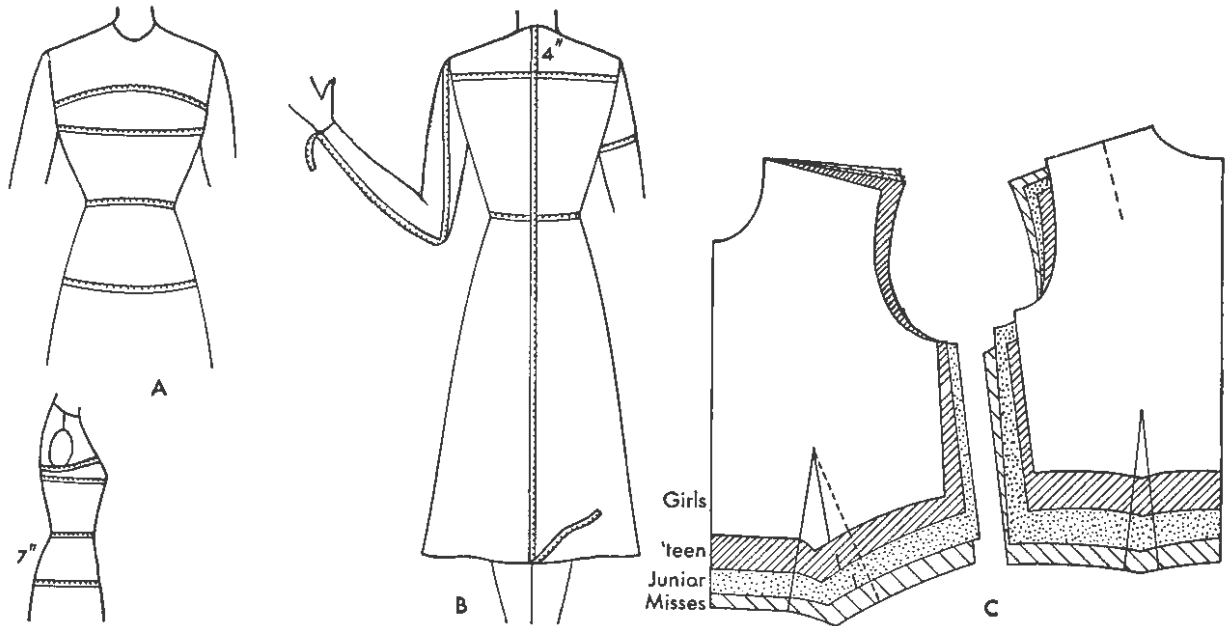


Fig. 3. A, method of taking measurements of bust, high bust, waist, and hip as basis for selecting correct size. B, additional measurements for checking pattern before alterations. C, comparison of recent attempts by one pattern maker to fit more people. Another company may call the Junior size shown here "Chubby." The Girl's pattern has a very narrow bust dart for the undeveloped figure.

ference of the pattern at bust and hip and 2" or less at waist. For other measurements pattern companies and dress manufacturers are not in complete agreement but none would widen a pattern $\frac{1}{2}$ " at the shoulder and neck—most of them use $\frac{1}{8}$ " for length of shoulder. The term, grading, indicates that a gradual change is made. We know that we do not grow as rapidly on some parts of the body as others. In general, bony areas show smaller changes from one size to the next than do fleshy parts. Figure 2 shows the amounts of change used by most graders and a simple but accurate method of slashing and spreading for increasing sizes (or, similarly by overlapping for decreasing sizes). This method is suited to the individual designer or custom dress-maker who occasionally may wish to develop other sizes. The professional grader uses mechanical drawing and mathematics, but unless he has a knowledge of basic art principles, he may change the designer's dream in the original so that it is unbecoming to the wearer, especially in larger sizes.

SELECTING SIZE

If you are a professional designer, you will use a size which can be later graded up two sizes and

graded down two sizes. Size 14 or size 16 is used extensively in this way but it depends on the type of merchandise being produced—for example, whether garments for college girls or matrons; sport or evening clothes; coats or dresses.

In selecting a blouse or dress pattern for yourself use the commercial pattern which has the bust measure nearest your own. Generally, this measurement is taken snugly over the fullest part of the bust in front, about $1\frac{1}{2}$ " below the armpit and raised slightly in the back to catch the shoulder blades. A (Fig. 3). If the size to which this measurement corresponds also matches your waist and hip measurements, you are fortunate.* Sometimes it is better to select a blouse in one size and a skirt in another. Generally, however, one does not want to pay for two patterns. Since the skirt

* Mrs. Edna Bryte Bishop, Home Economist for the Advance Pattern Company, has suggested that a high bust or chest measure taken well up under the armpits be used instead of the fuller bust measure to determine the correct pattern size if the difference between bust and chest is 4" or less. For example: a size 16 pattern is better than an 18 for the girl whose high chest is 34" even though her bust is 36". If, however, the difference between bust and chest is over $4\frac{1}{2}$ ", add 2" to the high chest measure to decide on pattern size. If she should be broad shouldered, the larger size—18—is a better choice. This high chest measure (plus 2") is good to follow if bust is prominent in proportion to shoulders or hips.

is easier to alter or fit than the blouse, it is wiser to buy a dress pattern in a size nearest the bust measure.

Skirt patterns should be selected by the nearest hip measure 7" below the waist. If your waist measure is smaller than this size, take up the extra darts at waistline. Do not buy a skirt pattern by waist measure, because a waist alteration is easier made than a hip alteration.*

Width Across the Back

While it is difficult to locate satisfactorily landmarks for measurements on the soft, fleshy body, with practice you should be able to measure another person's shoulder width across the back 4" below the neck, B (Fig. 3). Check with Table II or with a garment of known size or with a garment which you feel is right.

If you are in doubt, try on both sizes of a garment made by the company whose pattern you are considering. If it appears that you need a size 16 front and size 14 back, use the 14 and alter the pattern front or vice versa. The shoulder area and sleeves are the most important parts of the pattern for style and comfort. Waist measures are more easily altered.

Sizes in Patterns vs. Sizes of Ready-Mades

Manufacturers of ready-to-wear garments differ widely in their measurements for various sizes. For example, coat and evening dress manufacturers often use such numbers as 10 or 12 for sizes that fit girls with bust 34 or 36 inches. Although a size 12 blouse or a size 30 brassiere fits you, you could not be sure that a size 12 dress pattern would fit. The only way to be sure is to measure your body and not follow preconceived ideas of the size needed.

* Where one has difficulty in deciding on the size or has had trouble previously in securing a satisfactory fit, it is worth while to have available several garments made up in fabric to try on. They may be of muslin, percale, or similar inexpensive materials. Such "shells" need to have staylined seams but do not need such finishing details as hems or collars. Open down the front with $\frac{1}{2}$ "-1" seam they are easily tried on to aid in selecting the right size and later in deciding on amounts, types, and location of alteration for improved fit.

Sizes in Patterns for Different Age or Figure Groups

Among young girls other body proportions such as height and width of back or shoulders vary greatly. Pattern companies have designed a few patterns for these different figure types, C (Fig. 3). You may not find the kind of design you want in the group of your type; hence, all the more reason for you to know how to design your own patterns. But to save many alterations and try-ons, it will be to your advantage to decide which type is more like your figure and try to buy a size in that group (Table II), especially if it is to be used as a foundation pattern.

Suppose your measurements call for a size 14. If you have a fairly flat bust, are short-waisted, and fuller in the waistline, then select a Girl's size 14. But if you have grown taller, broader shouldered, and have more bust, then select a Teen size 14. The Junior 14 has wider darts or more darts and is still longer and slightly wider but comes in size 13 or 15, not 14. The Misses' 14 is for a more developed figure, longer from bust to shoulder, in sleeve and skirt and wider in both chest and back.

Older women who are short and matronly may find some patterns that come in half sizes but there are few styles available; hence, learning to fit standard commercial patterns and ready-made or basted garments is more than helpful. Likewise, selecting a simple pattern nearest your figure type, simplifies fitting problems especially if you know how to design interesting pattern details.

SUMMARY

To select the correct size of pattern take only three measurements—bust, waist, and hip. Other measures you may need for checking or altering the pattern. For separate skirts buy by hip measure not waist measure. For dresses and blouses, compare high chest measure with bust measure. If the difference is four or more inches, add two inches to the chest measure to determine size of pattern to buy—otherwise buy by the high chest measure. Best of all try on garments or shells to note these and other differences. Buy fewer patterns but better selected ones. You will find that the different pattern companies do not use the same models, so that by experience you may find one fitting you better than another. It is unwise to make sweeping statements about certain makes

of patterns which may seem to "run large" in your case, for they may seem too small for another type of build. Do not compare a Teen pattern of one company with a Junior pattern of another.

ASSIGNMENT

If a girl has 34" bust and 32" high chest what is probably the best size for her to buy? Suppose she has broad shoulders what would be best?

If a girl has 39" bust and 34" high chest, which size pattern would you recommend?

If a girl measures 33" high chest what size pattern would be best? If she is athletic and broad across the shoulders which would be advisable?

If a girl measures 34" bust and 39" hip what would be recommended?

An older woman's high chest measure is 32". She is flat busted and short but not too small in the waist. Which pattern will probably require less alteration?

If you measured 34" bust, 30" waist, 41" hip would you use a size 16 dress pattern? What would you do to the skirt pattern?

Table II

CORRESPONDING BODY MEASUREMENTS

GIRLS'						
Size	6	8	10	12	14	
Breast	24	26	28	30	32	Ins.
Waist	22	23	24	25	26	"
Hip	26	28	30	32½	35	"
Finished length from back of neck to hem	24	28	31	34	37	"
TEEN-AGE SIZES						
Size	10	12	14	16		
Bust	28	30	32	34		Ins.
Waist	24	25	26	28		"
Hip	31	33	35	37		"
Width across back 4" below neck	12¾	13	13½	14		"
Back waist length (From neck to waistline at center back)	14⅞	15¼	15⅝	16		"
Finished length from back of neck to hem	42	43	44	45		"
JUNIOR MISS						
Size	9	11	13	15	17	
Bust	28	29	31	33	35	Ins.
Waist	23½	24½	25½	27	28½	"
Hip	31	32	34	36	38	"
Width across back, 4" below neck	12½	12¾	13¼	13¾	14¼	"
Back waist length (From neck to waistline at center back)	15	15⅜	15¾	16¼	16¾	"
Finished length from back of neck to hem	43	44	45	46	47	"

MISSES'							
Size	10	12	14	16	18	20	
Bust	28	30	32	34	36	38	Ins.
Waist	24	25	26½	28	30	32	"
Hip	31	33	35	37	39	41	"
Width across back 4" below neck	12½	13	13½	14	14½	15	"
Back waist length (From neck to waistline at center back)	16¼	16½	16¾	17	17⅞	17¼	"
Finished length from back of neck to hem	46	46	46½	47	47	47	"

SEPARATE SKIRTS										
Size	10	12	14	16	18	20	40	42	44	
Waist	23	24	26	28	30	32	34	36	38	Ins.
Hip	32	33	35	37	39	41	43	45	47	"
Finished back length from waist to hem	30	30	30½	31	31	31	31	31	31	"
If your measurements do not correspond, order by hip measure. It is easier to alter at the waist than at the hip.										

HALF SIZES								
Size	12½	14½	16½	18½	20½	22½	24½	
Bust	32	34	36	38	40	42	44	Ins.
Waist	27	29	31	33	35	37	39	"
Hip	35	37	39	41	43	45	47	"
Width across back 4" below neck	13½	14	14½	14¾	15	15½	16	"
Back waist length (From neck to waistline at center back)	15¼	15½	15¾	16	16¼	16½	16¾	"
Finished length from back of neck to hem	44½	45	45½	46	46	46½	47	"

WOMEN'S										
Size—Bust	34	36	38	40	42	44	46	48	50	Ins.
Waist	28	30	32	34	36	38	40	42	44	"
Hip	37	39	41	43	45	47	49	51	53	"
Width across back 4" below neck	14	14½	15	15½	16	16½	17	17½	18	"
Back waist length (From neck to waistline at center back)	17	17⅞	17¼	17⅜	17½	17⅝	17¾	17⅞	18	"
Finished length from back of neck to hem	47	47	47	47	47	47	47	47	47	"

FULLER FIGURE FASHIONS							
Size—Bust	42	44	46	48	50	52	
Waist	37	39	41	43	45	47	Ins.
Hip	47	49	51	53	55	57	"
Width across back 4" below neck	16½	17	17½	18	18½	19	"
Back waist length (From back to waistline at center back)	17⅝	17¾	17⅞	18	18⅞	18¼	"
Finished length from back of neck to hem	49	49	49	49	49	49	"

Chapter 2

THE BASIC PATTERN—FITTING

In pattern making for a commercial firm the designer uses a standard pattern which is so proportioned that it will fit many customers without too many alterations. Details, like shoulder length and amount of bust ease, vary with the fashion and are developed in the basic pattern by the master designer for each establishment. The designers working under the head designer will then have two problems: (1) manipulating the basic dart, and (2) creating various style features.

However, the person who is designing patterns for herself or for individual customers, has the third problem of fitting. Economies of time, worry, and fabric are assured if the basic pattern is first fitted in every detail before style features are developed. Subsequent fittings will then be slight, though necessary to suit the texture of the fabric and to approve spacings and amounts of fullness which are not easily visualized from small sketches or from flat surface designs later to be worn or seen in the third dimension.

Poor sewing and pressing often give the impression of a poor fit. Techniques of good dressmaking are essential to good fitting and good designing. There is little point in your learning to design patterns if you do not know how to execute them in cloth with finesse. Some of the skills we assume you have already mastered are placing patterns true with the grain, cutting accurately along lines, stitching and pressing darts, basting by hand and by machine accurately, stay-stitching with the grain, easing in fullness, shrinking out fullness, tailor pressing, machine stitching exactly on the proposed line and corner, invisible hemming, making piped buttonholes and slide fastener plackets,

applying facings and interfacings, and setting a sleeve smoothly in the armhole. There are others but these construction skills are certainly fundamental. If they are poorly executed, it may be difficult to decide what is wrong with an ill-fitting garment.

A well-fitted garment feels comfortable, adjusts naturally to the activities of the wearer, is becoming in line and amount of ease and consistent with current fashions. In general, it hangs or sets without wrinkles, sagging, or poking out, and it is well balanced. Figure 4 illustrates both the well-fitted standard and the common unflattering evidences of a poor fit either in a pattern or a garment.

FIVE STANDARDS FOR A GOOD FIT

Five basic factors present in every fitting problem tell you what to look for in deciding whether a garment fits well or not. They are ease, line, grain, set, and balance. These five are interrelated. Not all five are equally obvious in every situation. Grain is difficult to see in fine weaves or firm, thick textures. In such a case look for wrinkles (absence of a smooth set) or look for balance at the lower edge as in a skirt, jacket, or short sleeves. But if the lower edge of the blouse is fitted into the belt or the sleeve into a snug cuff, one cannot observe balance very well so she must fall back on noticing grain or diagonal wrinkles or line direction. In a skirt it is easy to note the silhouette hipline seam but the underarm seam in a sleeve or blouse will not be so easily judged. Most of us are already accustomed to recognizing looseness, tightness (ease), and length or evenness

at lower hem lines of skirts, sleeves, and jackets.

In a simple dress like the foundation pattern, which is not purposely cut on the bias or in some unusual style, there will be the following evidences of a good fit.

1. **EASE.** The garment seems to be the right size, neither draws nor is baggy, and does not ride up in sitting or wear. Evidences of lack of ease are drawing across the sleeve cap, over the bust or shoulder blades, cupping under the seat, or a waistline too high. Evidences of excess ease are too long a shoulder seam, too many folds across the neck and chest, waistline too loose under the belt. Ease is the extra amount a designer leaves beyond the body measure at any given point. This amount varies with fashion, your build and personality, even your age, your material, your activity or the occasion; hence, the following amounts are merely helpful guides for a foundation pattern not to be followed too literally. Compare these figures with today's fashion in ease.

Guide For Ease

Back shoulder seam eased on to front about $\frac{1}{2}$ ".

Ease around bustline about 4". Be able to pick up a $\frac{1}{2}$ " tuck on each quarter of the blouse. A French bodice will have but 1" or 2" ease, a peasant blouse will have 6" or 8".

Ease across chest $\frac{1}{4}$ "– $\frac{3}{8}$ ". Be able to pick up an $\frac{1}{8}$ " tuck at center front without pulling armhole out of line.

Ease across back $\frac{1}{2}$ "– $\frac{3}{4}$ ".

"Blade" * or lengthwise fold in hollow between chest and bust, 1" ($\frac{1}{2}$ " tuck).

Blade at back similar to front, the hinge necessary for bending body forward.

Ease through hips, standing, $1\frac{1}{2}$ ".

Ease of skirt at waistline to fit on to belt—1" or $\frac{1}{4}$ " on each quarter.

* The blade is a long triangular fold on each side of the blouse which bridges over the hollow between the shoulder and the bustline. It begins as nothing several inches below the end of the shoulder seam and ends at the bustline, where it is about $\frac{1}{2}$ " wide (enclosing 1"). There should be a blade on each side of the back, too—four in all. Check this ease with the arms down. Fold the arms across the chest or on opposite shoulders to see if enough ease has been allowed. Do not confuse this ease with the amount needed over the bust.

Ease at base of sleeve cap, 2"–3" (1"– $1\frac{1}{2}$ " tuck).

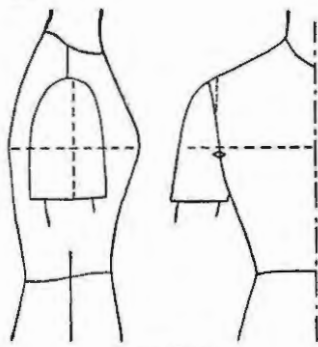
Ease at elbow, 1" ($\frac{1}{2}$ " tuck)—be able to bend elbow comfortably.

2. **LINE.** Lines to observe in fitting are the basic silhouette seams, the circumference seams, then style or design lines. The shoulder seam, the underarm blouse seam, and the side seam of the skirt should appear in a continuous line from tip of ear to ankle—at right angles to circumference seams and the floor. This line should seem to divide the front and back of the body about equally, so that often the round-shouldered person requires a shoulder seam slightly back of the highest point of the shoulders. This seam is basic to a good silhouette. If this line does not hang straight, it indicates that either front or back is too narrow at some place.

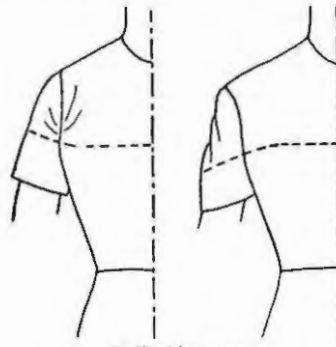
The *circumference* lines include neckline, armholes, waistline, wristline, and hem line. They should be smoothly graded curves following the natural body curves. The neckline sets up well in the back, hugs the neck yet is comfortable. The armhole should be oval, neither round nor pointed under the arm. It follows the natural creases made where the arm joins the body; if too low the arm cannot be raised comfortably with a set-in sleeve. The waistline seems parallel with the floor but a bit lower in the back to fit the natural hollow there. Care in this feature gives a natural, modern effect. The hem line should be parallel with the floor (except for unusual design irregularities). The wristline of a long sleeve should be long enough at underarm seam that it will not pull away in a point from the front but form a continuous curve to the top of the hand.

Such *design* lines within the silhouette as pleats, darts, gores should appear to hang perpendicular to the floor generally at right angles to the circumference lines they enter, or to radiate from the circumference they enter. Curved lines like yokes, should be direct, smooth, graceful, and exactly alike in symmetrical effects. In asymmetrical effects, lines in the blouse should seem to flow into those of the skirt if not actually match.

3. **GRAIN.** Threads or yarns, the units that make cloth, are called "the grain." Be careful to say "crosswise grain" or "lengthwise grain" for clearness. However, most dressmakers assume that lengthwise grain is meant when speaking casually about the grain. Since grain refers to the direction



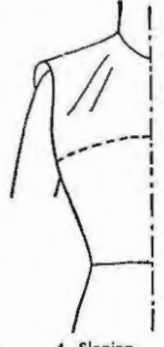
1. Standard as to five factors.



2. Shoulder seam.
Too short for wide shoulders.
Too long for narrow shoulders.



3. Square shoulders have lifted grain in chest and sleeves.



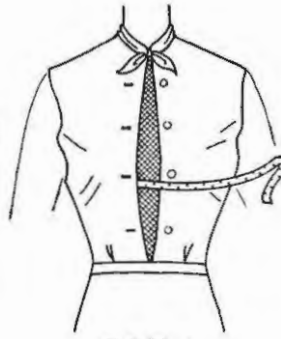
4. Sloping shoulders or wide neck.



5. Flat chest.



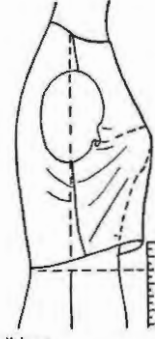
6. Sway back.



7. Full bust.



Belted.



8. Full bust.
Unbelted.



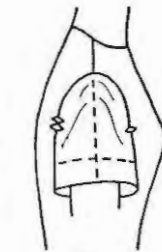
Belted.



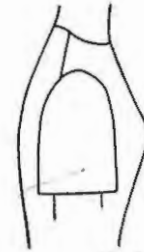
9. Round shoulders.
Unbelted.



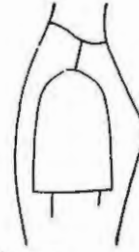
10. Not enough ease on front of cap.



11. Short sleeve cap or square shoulders.



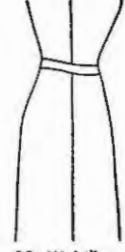
12. Shoulder seam.
Too far back.



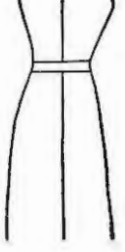
Too far forward.



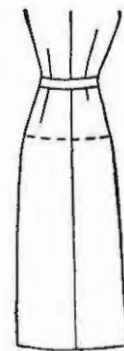
Natural curve down at back.



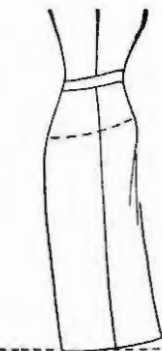
13. Waistline.
Back too high, front dips.



Too level.



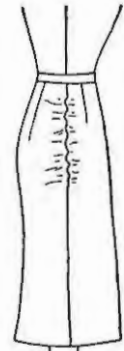
14. Standard.



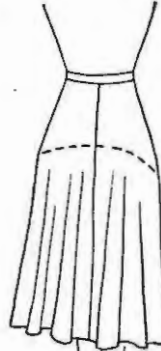
15. Prominent abdomen.



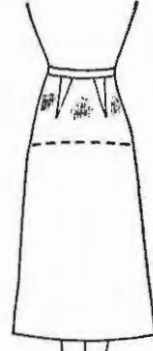
16. Prominent derrière.



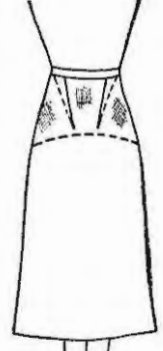
17. Cups in-darts too long—too tight.



18. Cut off grain or one hip larger.

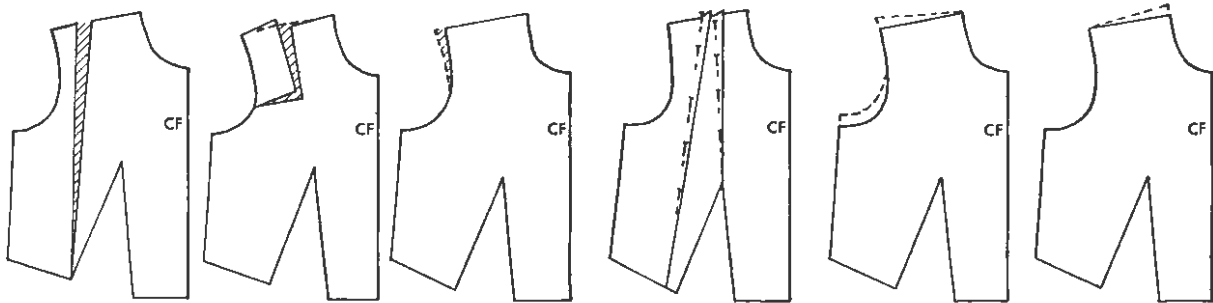


19. Standard dart lines.



20. Darts pulled out of line.

Fig. 4. Observe grain, line, ease, balance and set (absence of wrinkles).

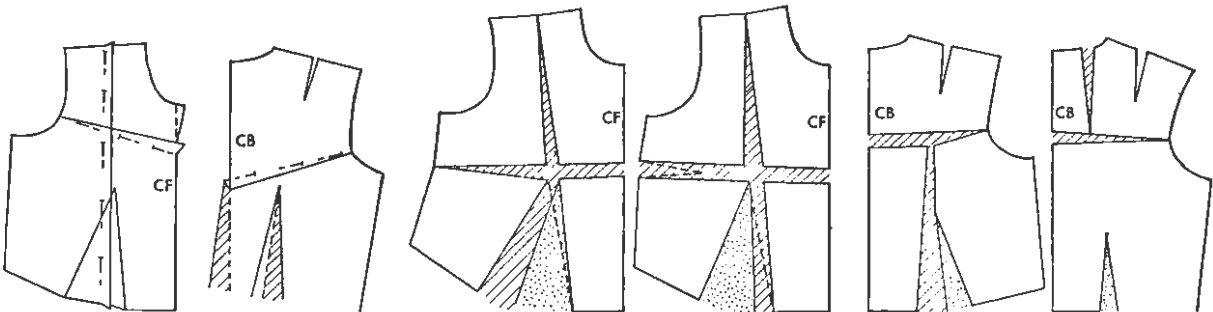


1. Three ways to widen shoulders - alter back to match.

2. To narrow shoulders, dart or tuck instead of slashing as in 1; end dart on bust or waist.

3. For square shoulders, raise armholes as much as shoulders.

4. For sloping shoulders or wide neck - alter back to match.

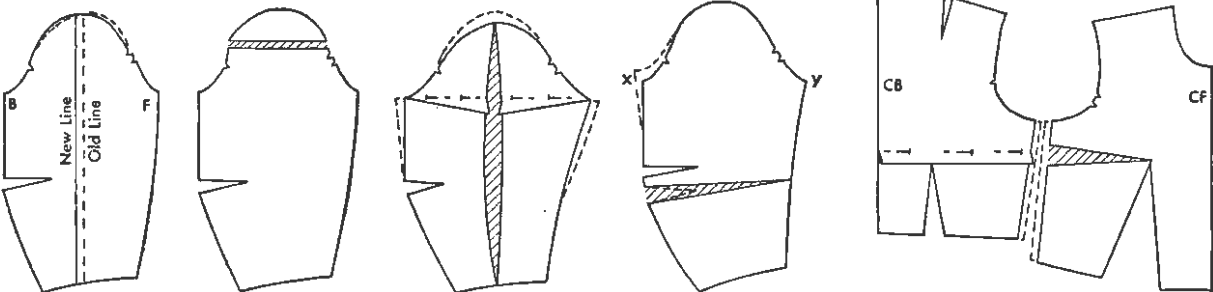


5. For hollow chest, dart to shorten, trim excess at neck; tuck to narrow shoulder and basic dart.

6. For over-erect or sway back, crosswise dart to shorten; trim excess at waistline and narrow dart.

7. For full bust, slash crosswise and lengthwise through one dart, to widen a dart or make a new one.

8. For round shoulders (same principle as 7).



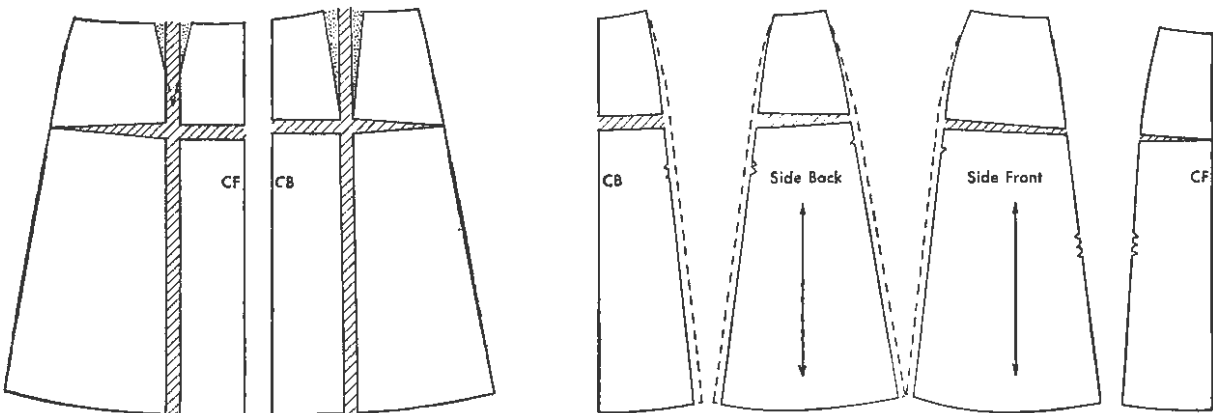
9. For bony knob on upper arm.

10. To lengthen sleeve cap.

11. For large arm, raise top of cap or raise lower armhole.

12. More elbow room; a new dart and more cap room at back.

13. Short back with full bust; tuck across back to match new bust dart; let out seams.



14. For prominent abdomen and 15. for prominent derriere extra length and width and a wider dart.

16. For prominent side and back hips, six-gored skirt; change gradual from back to nothing at front.

Fig. 5. Altering patterns by slashing and spreading, Method I.

of the threads, there is no such thing as a bias grain. Just say bias! Usually lengthwise or warp threads are heavier than crosswise or filling but there are exceptions like poplin, bengaline, faille, or shantung. The heavier threads tend to hang downward on the figure. A good designer recognizes that cloth has a will of its own and takes advantage of the fact. Graceful folds in gathers, pleats, ruffles, and skirts occur if they follow the heavy threads.* But designers use darts, curves, and angles to make the cloth fit the body or create interesting spaces, therefore the lengthwise grain is not always at right angles to the floor. The parts that are bias tend to flare or ripple.

In the standard basic pattern at center front and back at both bust and hip, the lengthwise grain is perpendicular to the floor (unless bias seams are in the design), and the crosswise grain is horizontal or parallel with the floor from CF over as far as the point of the bulge at least. The grain on the right half of the garment should match that on the left half, except in asymmetrical designs as in a side draped skirt. In a plain sleeve, the lengthwise threads should hang vertically from top of shoulder to the elbow and crosswise threads in the upper sleeve should be parallel with the floor. In a shirt sleeve and its modifications (kimono, dolman, raglan, or puffed) the crosswise grain will curve on the figure but it should balance from front to back.

If the crosswise grain curves up or down where it should be parallel with the floor, it is because of some body bulge or hollow directly above the curve. If you do not drop or raise this grain line by letting out or taking up the seam directly above the curve, wrinkles, sagging, or poking out below will appear. The crosswise grain must intentionally drop at hipline wherever circularity or flare is desired below the hipline.

The grain line may be off because of failure to cut "grain perfect," or to stay-stitch curves and crosswise seam lines to keep them as cut.

4. SET. A smoothness of "set" or freedom from wrinkles is required for a good-looking fit. Graceful folds created by gathers or unpressed pleats or draped features are style lines not to be confused with wrinkles, those slanting triangles straining from some curve or bulge of the body. These

wrinkles are usually on the bias because it is more elastic and will give to the strain.

Crosswise wrinkles occur because at a circumference level above or below them the garment is too snug. For example, a skirt too tight around the hips rides up, pushing wrinkles toward the waistline. Thus, if the grain and ease are corrected, there will be no wrinkles. Crosswise wrinkles across the shoulders at the back of a jacket or blouse occur because the shoulders are broad, or sometimes because shoulders are square.

Creases due to poor pressing detract from the smooth look we desire but are problems in pressing, not in fitting.

5. BALANCE. The standard skirt should hang so that it extends the same distance from the legs from right to left and from front to back. The sleeve should apparently have as much ease back of the shoulder seam as in front of it; the standard short sleeve should not poke out more in front than in back, nor should it poke out on top of the arm (unless it is a shirt or kimono sleeve). The shoulder seam should rest evenly on the shoulder, not tighter one place than another, nor bulge away from the neck more than it does at the armhole. If the lower edge of the skirt, sleeve, bodice, or jacket pokes out, you will find that it is caused by a bulge directly above the rise. At that point the grain curves up instead of being straight across. Diagonal wrinkles point away from the bulge.

Causes of Poor Fitting

We repeat that complete respect for grain throughout and precision in dressmaking or tailoring make for a good-looking garment. But even though you are skilled or even though you buy the better well-tailored ready-mades, you may still have fitting problems because the pattern was cut for an imaginary average or model. Some of your body contours will vary from that standard. If these differences are due to poor posture, you may correct them by daily practice and better styled foundation garments. If your bones and flesh differ only slightly, grain, line, ease, balance, and set are disturbed and the result is a noticeable lack of a pleasing fit.

The body is made up of many subtle curves, but there are seven basic ones we call body bulges. They are the bust, the end of the shoulder, the shoulder blade, the elbow, the abdomen, the side

* For further discussion on grain, see Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949), pages 210-217.

hip and the back hip. (A wide neck, fleshy thigh, and prominent front hipbone are minor but similar bulge problems.) A flat piece of cloth must be folded into darts or cut in seams to allow enough ease over each bulge. (Dart tucks or gathers may be substituted for a long dart to create a softer effect.) The larger the bulge, the more cloth is needed to cover it and, consequently, the wider the dart to control the excess. Hence, a good knowledge of pattern design enables one to regulate the darts to control grain, remove wrinkles, create ease and balance, and straighten lines. Both pattern designing and fitting are based on the same principle of the basic dart. A knowledge of Chapters 3 and 4 will help you to alter patterns and fit garments.

Fitting Patterns vs. Garments

It is obviously more sensible to alter the pattern (Fig. 5) before cutting the cloth, but if one has failed to do this or to have done it successfully or if one has a ready-made garment needing fitting, one must learn to do both. In fact, you will see that the principles of pattern alteration are exactly the same as those for fitting, so perhaps we should learn to use the phrases "pattern fitting" and "garment fitting"; the same changes have to be made whether in paper or cloth, but we may go about the process differently. To avoid confusion

we will use "alteration" for pattern fitting or adjustment and "fitting or pin fitting" for changes in the garment proper.

ADJUSTING THE PATTERN

Preliminary Adjustment of Pattern Size

Instead of measuring the pattern for bust, waist, and hip, use the printed measures given on the pattern envelope. Compare these with your personal measurements. You have already selected the pattern based on your bust measure, hence before trying on the pattern you should alter only length, waist, and hip measures by using arithmetic to decide on amounts of change.

1. Length. Use tucks at right angles to grain line to shorten garment parts. Similarly, slash and spread pattern for extra length (Fig. 6). However, if the lower part of a pattern piece does not vary much in width from the area above it, simply add to or cut off lower parts. If it is important to retain the size and style detail in the lower edge of a pattern piece, the excess length cannot be cut off the lower edge.

2. Waistline. If your hip size is satisfactory but your waist measures 2" less than what your pattern says, such as 26" for size 14, then 2" must be removed at the waistline only (not hip or bust) in

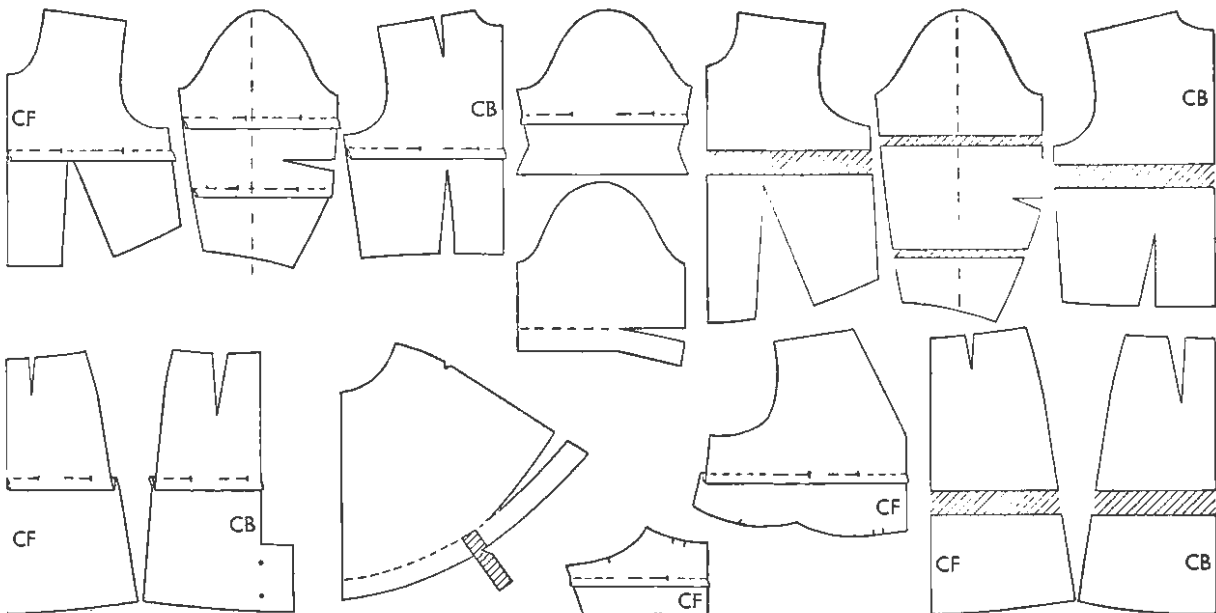


Fig. 6. Adjusting length.

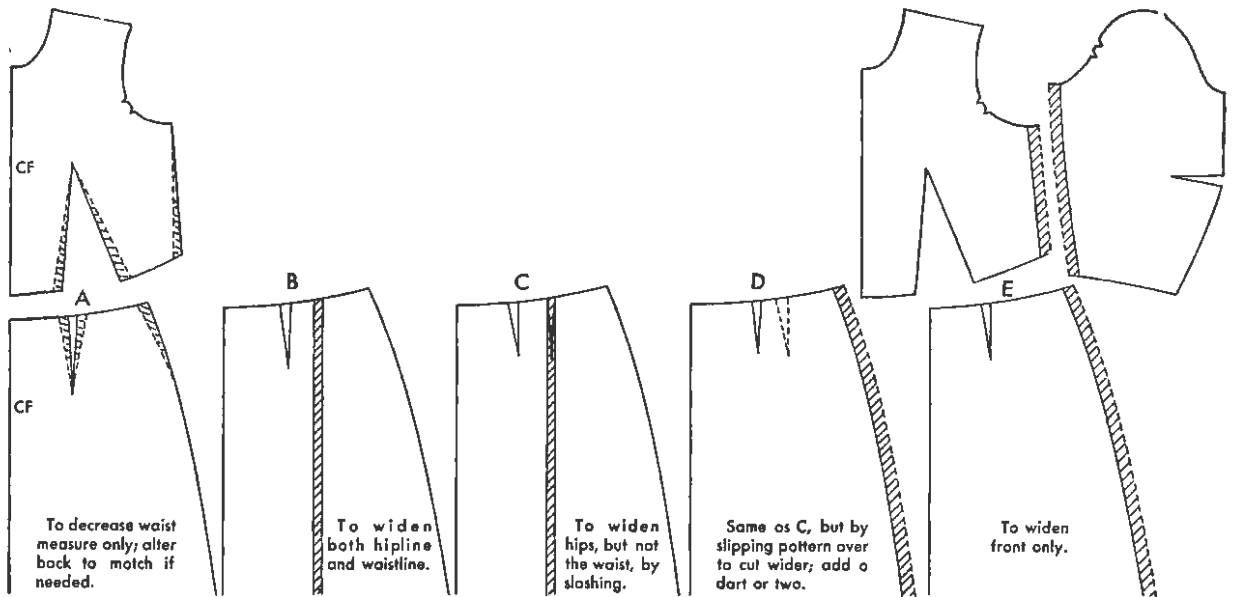


Fig. 7. Adjusting waist and hip width. Use arithmetic and a measure.

both skirt and blouse, or $\frac{1}{2}$ " for each quarter of the garment (Fig. 7, A). The easiest way is to redraw the darts $\frac{1}{4}$ " wider on each side, tapering to the same end point ($\frac{1}{4}$ " at each of 8 places totals 2"); or add a new dart. In case of several seams redraw the hipline seam (a slight curve* here) and the four darts, totaling 12 places, therefore each $\frac{1}{6}$ ". You may not have a ruler with sixths and thirds, but by using $\frac{3}{16}$ " to make those darts or seams wider where you curve out the most as side hip or back, and $\frac{1}{8}$ " where you are flatter as in front, you may secure a total satisfactory result. To change only the side seams would pull the darts out of good position.

3. Hipline. If you measure smaller in the hip than the pattern says, take lengthwise tucks the entire length of skirt pieces, each one half as wide as amount of decrease for a fourth of the skirt. If you measure wider in the hips than the pattern says, widen the entire length of each pattern piece (Fig. 7, B), then widen darts if any, or draw in new darts, C, to make waistline fit your measure. In reducing the waist measure always leave a total of 1" for ease in attaching to belt or tape.

FITTING THE PAPER PATTERN

Trying on a paper pattern is not completely reliable for indicating a perfect fit especially if the

* Use a tailor's curve stick or copy the curve of the original pattern in establishing the new curve.

paper is stiff, but it is most helpful in showing lack of balance at lower edges and a tendency of garment to bulge away from the body at neck, shoulder, or armhole. These indications may be measured to tell one how much to alter for body bulges or hollows. Fitting the pattern also checks your previously measured corrections (Fig. 8).

Pin pattern together, seam line on seam line by overlapping. Since this paper is only half a garment, be careful to anchor CF on your body's CF, CB on CB, waistline at waistline to a tape.

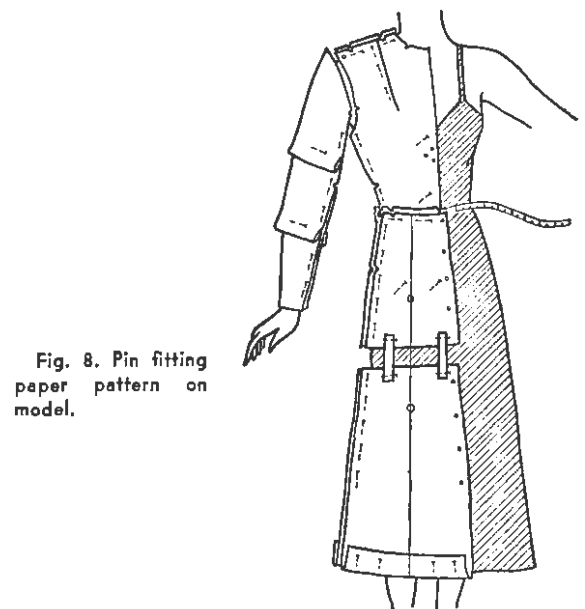


Fig. 8. Pin fitting paper pattern on model.

(Pull sleeve pattern in place later.) Observe lines, ease, balance. Pin fit or change measurements needed for further correction in length and width (ease), then measure amounts where parts are off balance. Since paper is stiffer than cloth not all fitting can be done at this time but much of it can.

If a prominent bust draws the underarm seam forward, or draws armhole out in a hudge, or pulls up from belt line, then fit the blouse separately from skirt in order to note amount of hiking up at CF. Measure amount that lower edge of blouse rises above the waistline due to the full bust (or in back, due to round shoulders) (Fig. 4).

Release one vertical seam to estimate total extra width needed, 7 (Fig. 4).

If skirt hikes up, measure amount off from level at that point, 15 (Fig. 4).

Pull sleeve pattern in place, seam line on seam line; pin at underarm, shoulders, and notches (with shoulder pad in place if one is to be used). Make a tuck above elbow if elbow dart is too low; if too high measure amount. Measure amount of rising above the level of the crosswise grain at sleeve cap line. Measure needed changes for ease at cap, elbow, lower arm as indicated by vertical tucks or by the spreading apart at seams.

On table, correct alterations made in darts, tucks, slashes, and spreads. If corrections are needed for bulges, off-grain or off-balance effects use the measurements just taken and follow procedures in Figure 5.

Fitting the Muslin Pattern

Cutting a muslin copy of the pattern after the preliminary adjustment of the paper pattern is a more accurate way to check fitting needs. (If no pattern alterations have been made use 1" seam allowances, with 2" extra at lower edge of skirt and blouse.)

Stay-stitch on the dart and all seam lines except lengthwise ones; then slash any curves. Draw, rather than baste to mark crosswise grain lines, if not clear; clip, rather than baste to mark CF and CB location points at seams.

Steps in Solving a Fitting Problem

The first step in solving a fitting problem is to study the garment and check each of the five factors (Fig. 4). Are there any diagonal wrinkles straining for release at a bulge? Does the cross-

wise grain rise or fall from a line where it should be perfectly horizontal? Are the basic seam lines slanting where they should be straight, or do they waver in untrue lines? Does the garment ride up or draw because it is too snug, or is it too sloppily loose? Does it poke out of balance below the basic body bulges so that lower lines are not horizontal and grain lines not balanced? How much are lines off balance?

The second step is to determine the cause. If a bulge is overly prominent, it lifts the grain; but if there is a hollow instead, the grain sags and, along with it, the lower edge of that part of the garment hangs out of balance, below level.

The third step is to decide on the remedy. It is easy to see that we take up a seam directly above a sagging grain or edge line; or let out a seam directly above a rising grain or edge line. Which to do depends on the width of seam available and also on the effect upon adjoining seams. Will the neckline be improved if the shoulder seam is taken up or let out? Generally, it is easier to correct the neckline than to correct the sleeve and the armhole. Pin a tuck to narrow or shorten (alter pattern to match and recut). For bulging, take deeper darts obtained by release of seams. For hollows, let out darts and remove excess at seams. See page 11.

The fourth step is to make the change and try on the revised version for approval or further changes.

The fifth step is to understand the cause and remedy and make conclusions to help make later alterations for the same difficulty. (Or decide to alter your body by posture exercise, diet, or pads and foundation garments!)

Correcting the Pattern

Changing the pattern to fit is generally called pattern alteration, but since the changes in the pattern must produce the same results as fitting in the cloth, it seems more accurate to speak of pattern fitting and garment fitting—one is done before cutting the cloth, the other afterward. The principles are the same. Most workers think of pattern fitting as adjustments or alterations done inside the area of each piece just where the change is needed, but in garment fitting such a procedure is obviously impossible—all changes have to be made on existing seam and dart lines.

PATTERN ALTERATION

Method I. Slashing and Spreading Within

Amateurs will do less damage to the exact lines cut by the pattern makers at the edges of patterns if all alterations in the paper pattern are made in the interior at or near the body area needing the change. This principle requires two slashes in the pattern piece—one lengthwise and one cross-wise, intersecting at the point of bulge and spread apart or overlapped independently as needed. It is simpler if one of the slashes goes through a basic dart, 7 (Fig. 5).

If one seam line such as the shoulder is to remain unchanged, cut the slash over to, but not through, the seam that is to be unchanged. It helps to draw in a horizontal grain line at base of armhole before separating parts to keep them in alignment when spreading. Keep the CF or CB line straight.

If spreading one end of the slash causes the other end to spread too much, the extra must be taken out by converting the space into a new dart (or by widening the dart already there) so that the original seam will remain unchanged in length, 7 and 8 (Fig. 5).

This technique seems more logical to the author, but some people object to mutilating the pattern and it may be confusing when altering a complicated pattern. It is certainly the easy and accurate way to fit simple foundation patterns. Strips of paper may be pinned across the spread-out slashes, the pattern tried on and the spreads checked or altered while in position on the figure. Of course, pinning tucks for hollows is naturally simpler than changing seam lines or slashing.

Method II. Pivoting to Change Edges

You can pivot or shift the pattern to alter for a bulge without any slashing. The steps (Fig. 9) are illustrated here for a prominent bust but the technique will work on other bulges.

A. Begin at front edge of vertical dart. Trace it and the waistline over to CF (1 to 2).

Move CF up the length required, $\frac{1}{2}$ "–1", then trace it and the neck to point 3.

Raise the armhole end of the shoulder seam enough (about $\frac{1}{8}$ ") to widen the chest slightly, 4, and to widen the bust the desired amount ($\frac{1}{2}$ "–1"), 5.

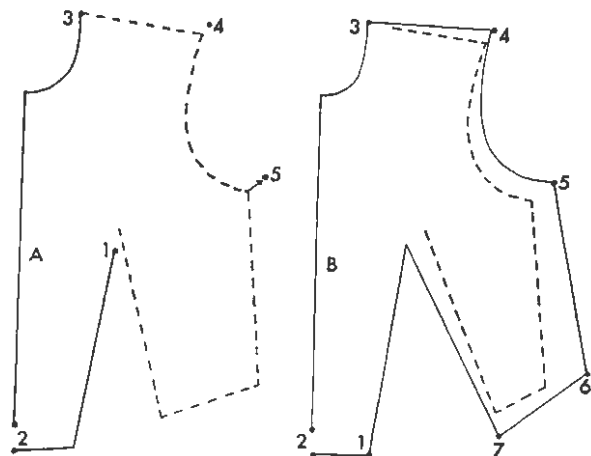


Fig. 9. Altering a pattern by pivoting for extra length and width, Method II.

B. Trace shoulder, armhole, and underarm seams down to the waistline, 6. Swing pattern back and down so that the back edge of the dart, 7, is opposite the front edge, 1. Connect with end of dart. Check to see that 6 to 7 is the same size as original pattern.

C. The basic dart may be kept as low as, or lower than, the original by redrawing a narrower point. Fold in the new dart, then cut along new edge lines. The neck, shoulder, armhole, underarm, and waistline have not been changed in length, but the bust area has been widened and lengthened and the basic dart enlarged. Check total width added and total length added to match your intended alteration.

This method saves cutting up the original pattern.

Method III. Redrawing Edges of Pattern

Either on cloth or paper trace around the pattern of parts to be unchanged, then cut off or widen seams, hems, and darts for bulges. The problem is where and how much. Widen seams most on edges directly above or across from bulge. Use a gauge to mark the exact amount of change required—just remember that extra length as well as width must be provided; that darts are widened for bulges (or shortened and narrowed for flat hollows). Then place pattern on these marked points to draw in new silhouettes. This method is more free-hand and quite acceptable in the hands of a careful worker conscious of the theory of darts and bulges, but has more chances of error in the hands of amateurs. Figure

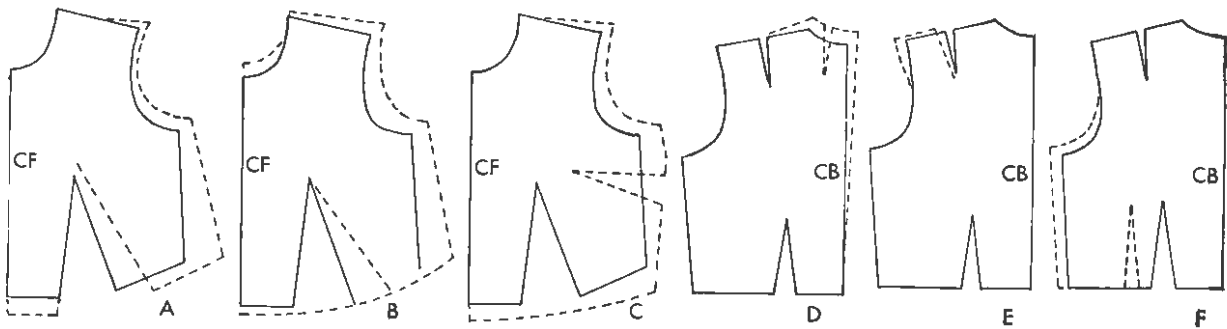


Fig. 10. Altering a pattern by redrawing the edges, Method III. Dotted lines show where original pattern was moved widthwise as well as lengthwise to alter for full bust A, B, C. D and E show two shifts for round shoulders, and F for fleshy back at torso level.

10 illustrates such changes which are exactly what one should do in fitting. If you can do it in cloth on a person, why can't you do it on paper on the table? You can, if you know what you are doing and are accurate!

Comparison of Methods of Altering Patterns

Figure 11 compares the three methods of altering a pattern for full bust. In A, Method I, the spread was equal in all four places. The shoulder and underarm space was converted to two new darts. In B the new darts were pinned in order to make one basic (waist) dart flatten out wider. In C, Method II, the basic pattern was pivoted to provide the extra amount of length and width over the bust. In D, part of the length was added on top, part on bottom; width of chest was graded to make armhole wider near bust; enough width was added at side seam to make the bust as wide as specified. Since the waist measure was not to be

increased the extra width at side seam is pushed over and taken out with basic dart.

These methods are practically the same in final results. One method may appeal to you more than the others. Most people find Method I "fool-proof" and easier to understand. Experienced experts prefer free-hand changes at seams.

FITTING ON THE FORM

In cutting out a garment then, one must fold in tucks or take up seams for hollows; or add extra width and extra length at edges (darts or seams) opposite a bulge. The fitter uses these extra allowances as she pins on the model. This procedure is good if you enjoy freedom with the fabric as in draping. If you are working for yourself altering the pattern by slashing is better. If the garment is already cut out or is a ready-made you are forced to draw on many seams—Figure 10, B, and Figure 11,

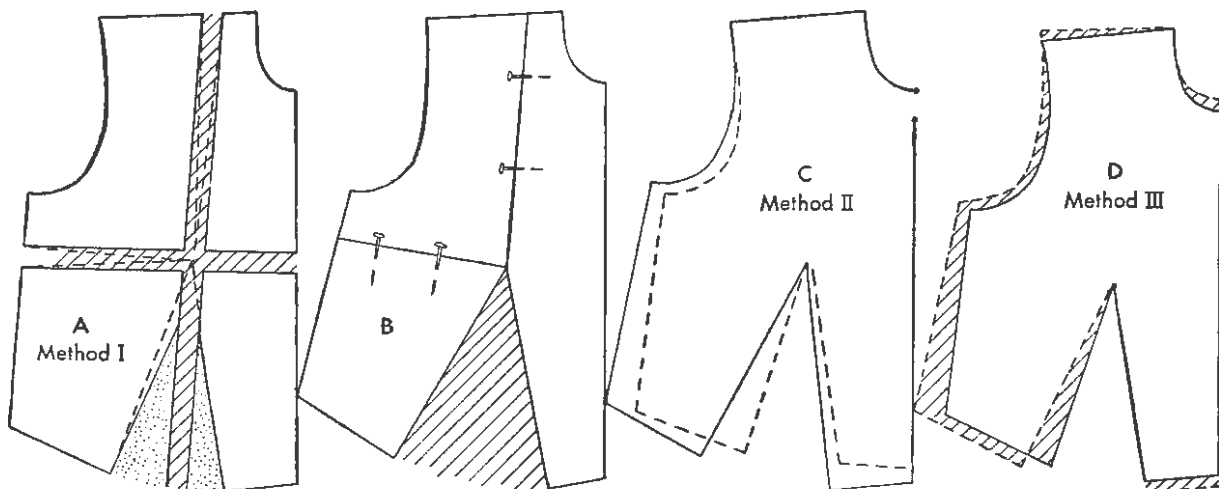


Fig. 11. Comparison of methods of altering pattern: A, by slashing and spreading; B, by closing darts of A, and combining the three spreads or darts into one larger one; C, by pivoting; D, by redrawing edges. All methods provide extra width and length for the bulge. Final results are the same.

D, for example—rather than working on just one seam. In C (Fig. 10) we get along with less extra width at waistline, but use extra length to make the underarm dart. If you can't get all you need in one seam, look elsewhere. This points up the fact that many seams on hard-to-fit customers give the fitter more leeway.

You can become a better fitter by comparing altered patterns with the original. In cutting out a garment by a pattern that has had little or no altering for bulges, you can see why 1" shoulder and underarm seams and 2" shirttail seams are wise.

Fitting Garments

Fitting garments is free-hand work depending on an eye for the five factors of fitting, a light and skillful touch to rip bastings and repin new seams and dart lines. It is the creative skill that so few take the trouble to develop. It is like draping or modeling on a form. In fitting, one is restricted by seam allowances, whereas in modeling only the width and length of fabric inhibits one. In fitting, one uses pins not only to hold parts together but to establish lines. Tape is a good guide to develop your eye but eventually you must see the lines and put them there with pins. After the fitting use gauges, rulers, or a pattern to true up lines—chalk them in or baste them or stitch them as you have ability and confidence in yourself.

In dressmaking, whether parts are pinned or basted, the first fitting concentrates on lengthwise seams and we fit chiefly for width or ease. Details and darts are checked for proportion, location, and size. Balance, grain, and set indicate necessary changes. The second fitting concentrates on circumference seams, and the third fitting on minor changes, closings, and decoration.

In general, fit bust of blouse first, then above and lastly below it; fit skirt hip first, then waistline and then below hip; fit sleeve at elbow, then above, then below.

FITTING FOR EACH OF THE FIVE FACTORS

EASE. In fitting for width at first fitting, have garment right side out. Use pins at right angles as for lapped seams. Fit both halves on the figure. For slight changes simply pin deeper seams or release seams. However, if there is much excess ease, pin lengthwise tucks in garment; alter pattern

likewise and recut; if garment is too long, pin crosswise tucks similarly or decide whether to cut off bottom or lift at top.

If you release one lengthwise seam, you can measure the gap it leaves when adequate ease allows the garment to settle comfortably into normal position, 7 (Fig. 4). Then decide how to distribute this total amount of let-out among the other seams so that proportions will be maintained. If the garment is too tight, let out all seams and darts slightly rather than letting out a great deal in one. Similarly if garment is too loose, take up many or all seams and darts. Shortening darts will release some ease and add softness.

LINE. Seam lines may be shifted forward by letting out the back (at shoulder or underarm) and then taking up the front the same amount; or vice versa. Lengthwise seam lines will usually straighten up when grain, ease, and balance are restored. Circumference seams may be adjusted after lengthwise seams are corrected by marking along a tape to establish the new line—as neckline or waistline of the blouse. Usually curved seams set better if clipped from raw edge to, but not through, stay-stitching. Use the shortened, hiking lower lines of blouse and skirt to indicate a need for alteration above that point to provide more ease over a bulge. (Fig. 4). Do not try to work on skirt lines unless the top is stay-stitched and either pinned or basted to a belt or tape.

Where a lengthwise seam line slants out of its vertical position, it is an indication that a bulge is pulling it away. Provide more ease above at the bulge by letting out the vertical seam or lifting the cloth along the line and making a wider dart for the bulge.

After all fitting is completed, true up all seam lines and darts before stitching. Stitch true with the grain and press with the grain to complete "good lines."

Sometimes style or design lines need adjusting and if poorly executed they may prevent a good fitting job.

GRAIN. If you are grain conscious, you have the first guide for knowing what to do. Let out seams above rising crosswise grain lines, A and B (Fig. 12); or deepen seams above drooping crosswise grain lines, C—the results are the same. Where seam allowances are narrow, it helps to compromise by letting out one end and deepening the other end. In either case, consider the effect on adjoining pieces such as collar or sleeve. Taking

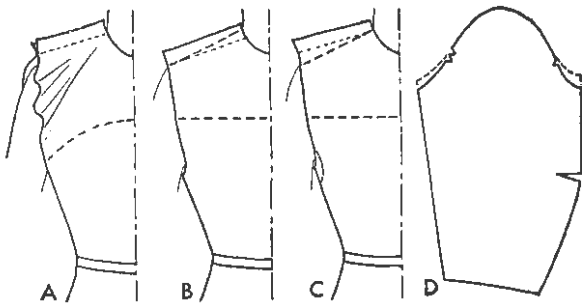


Fig. 12. Pin fitting to level grain.

up the shoulder seam at the arm end requires hollowing out lower armhole, C, to fit sleeve; or one must shorten the sleeve cap, D.

We assume that the garment was cut grain perfect; if not, recut. In general, lengthwise grain hangs straight down, whereas bias flares or ripples away from the body (Fig. 13). If the side seams

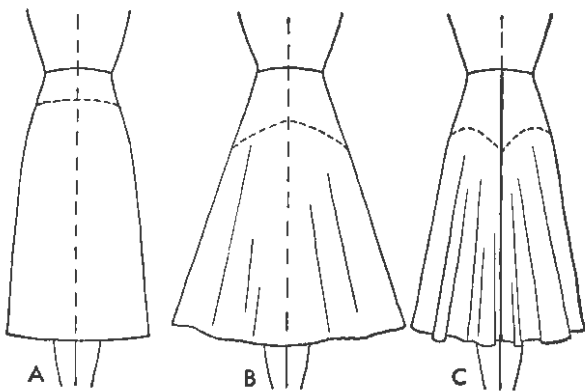


Fig. 13. Crosswise grain is parallel to floor only where skirt hangs straight below, A. In B, bias side seams create side flare, with crosswise grain drooping. In C, the bias is at CF, so that crosswise grain drops more at CF than at hips.

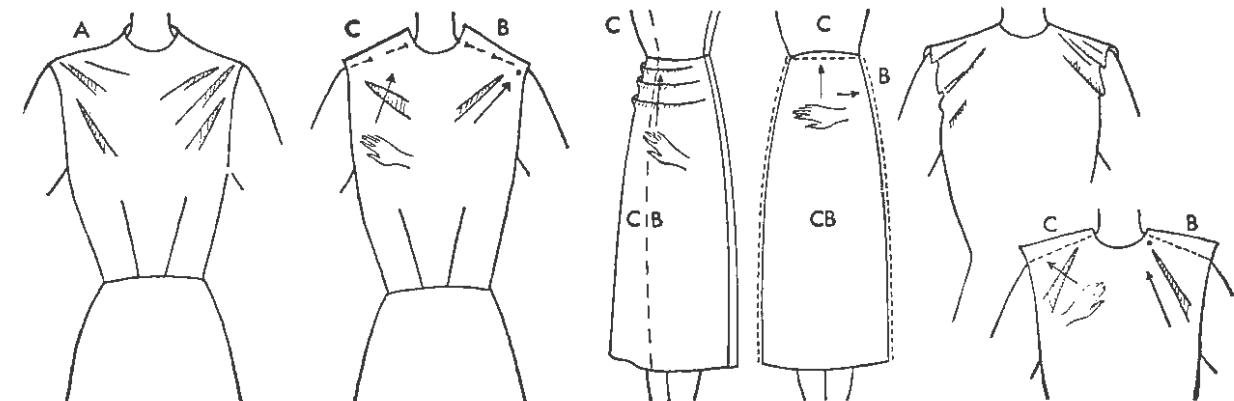


Fig. 14. A, undesirable wrinkles must be removed. B, release seams at pointed end of wrinkle. Or, C, take a deeper seam where you have smoothed your hand across the middle fold of a wrinkle.

of a skirt flare too much, the seam can be straightened somewhat, but generally it is better to lift the crosswise grain at hip somewhat and push the extra hip fabric forward to make another vertical waistline dart or widen the dart already there. Gathers, dart tucks, and easing in the fullness will hold the grain where you place it in fitting (Fig. 12).

SET. A smooth set is our ultimate goal—the absence of wrinkles or drawing. To remove a wrinkle, trace it to its point of origin which is a bulge causing the trouble and there let out the seam, B (Fig. 14). Or, smooth your hand at right angles across the wrinkle and push the excess out by taking a deeper seam at this new point, C; (however, the procedure may make the garment too snug). Most wrinkles are diagonal forming along the bias because it is more elastic. Sometimes you may push the wrinkle into a dart. (A dart is a controlled wrinkle—a wrinkle is an uncontrolled dart.) Several darts are more becoming than one on most figures so do not hesitate to form new ones or enlarge others.

Diagonal lengthwise folds in skirts similar to circularity often hang in undesired places as over a prominent front hipbone. Letting out the waistline seam there and taking it up a little farther back is an example of tracing a diagonal wrinkle to its source and there releasing the seam. Conversely, if a ripple is desired at a certain spot (provided some width is available) pulling the seam deeper there creates such a “wrinkle” or flare.

BALANCE. If the garment hangs farther from one side of the body than the other, either it is cut off grain or the body bulges more on one

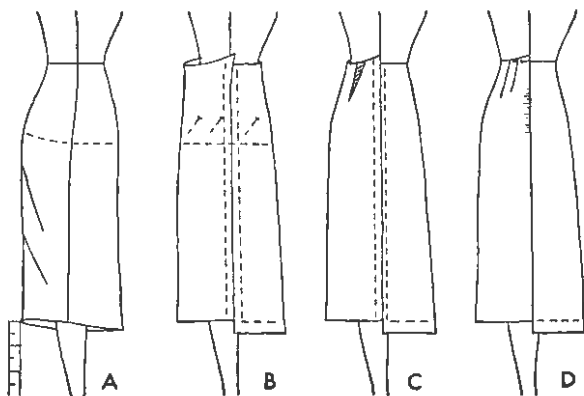


Fig. 15. A, prominent derrière pulls back of two-gored skirt off balance. B, open side seam and lift back to provide width and length above the hipline. C, because waistline is now too large, make dart or darts in back and trim off lower front. D, use two darts instead of one large one at waistline, or ease some of back to front along hipline.

side than the other. Note appearance from front to back as well as from right to left. The part hiking up is below a prominent bulge. Measure the amount that this part is off level, 15 and 16 (Fig. 4) and use the measurement to tell you the amount of extra length to provide, A (Fig. 15).

Figure 15 is used to develop a typical procedure. To correct, it is necessary to rip the nearest lengthwise seams and lift the part covering the bulge above the adjoining sections; the lower part of the adjoining section will then have to be evened off, B. Anchor hip and grain lines. To provide the width needed it is obvious that the vertical seam must be let out—and let out all the way down to provide both seat and knee room. Near the top the extra length may be smoothed into a vertical dart, C—or two, D; or some of the extra length may be eased into the lengthwise seam,

D, later to be steamed out. This procedure is necessary because both extra length and width must be provided to cover the bulge. Some width at waistline may be taken out in the vertical seam, but most of it should be smoothed into the dart or darts.

In general, take up darts for bulges; and, vice versa, let out for narrow darts and take up seams for hollows in fitting. The principles of fitting developed above are applied to the following similar problems. Most of these out-of-proportion figures would appear better in designs with several seams as four or six gores, and fitting would be simpler.

Fitting Prominent Bust

Point out evidences of need for fitting based on the five factors, A (Fig. 16). To correct follow these steps.*

1. Rip underarm seams so that back will settle into its normal position, B.

2. Smooth front over chest and down CF; pin CF where it has slipped above waistline. (Or let out shoulder seams and drop entire blouse below neckline to make long enough at waistline.)

3. Shorten waistline dart to end about 2" below point of bust. Pin the dart wider at waistline as much as the underarm seam can be let out, C.

4. Smooth the armhole fold or wrinkle downward and the waistline wrinkle back and up to make a crosswise dart underarm, C. Or some of the armhole can be smoothed up into a shoulder

* Fit a standard size muslin blouse over a model with padded bust for practice. You will understand the principle if you follow these steps.

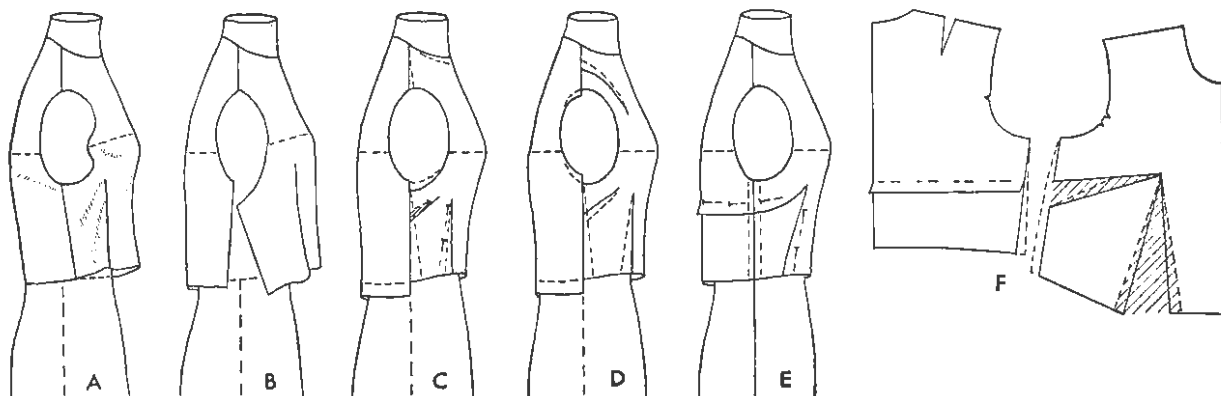


Fig. 16. Fitting blouse for full bust.

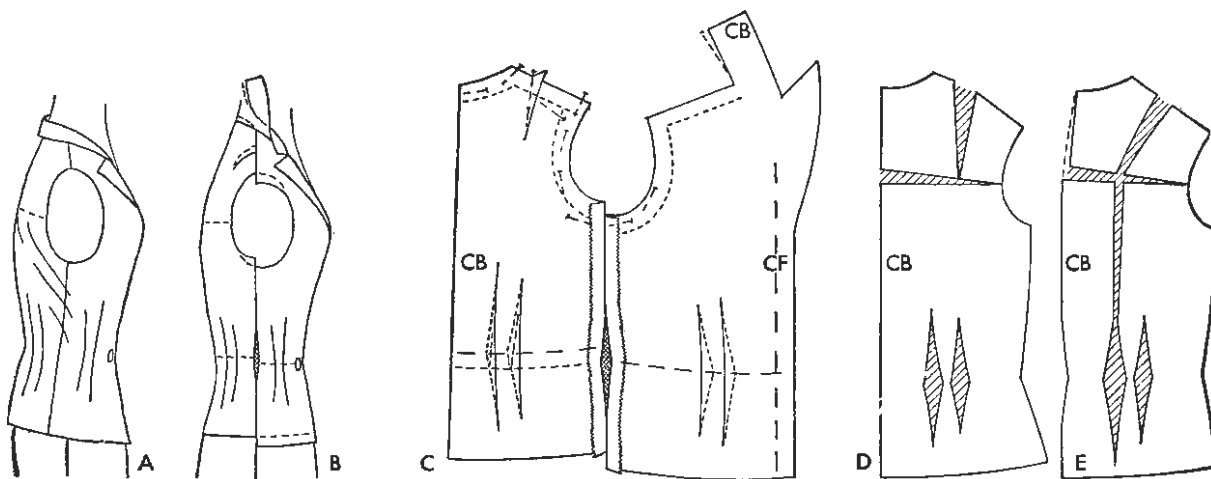


Fig. 17. Fitting jacket for round shoulders.

dart if the armhole seam is sufficiently wide, D.

5. Let out front underarm seam as much as possible; let out back only if necessary.

6. Correct armhole by making front armhole seam narrower, or back deeper (make matching change on sleeve). Or cut an entirely new front. Last, let out lower front waistline seam if it is deep enough; or cut off lower back; or cut an entirely new front if it is too short.

7. Crosswise wrinkles across the back on a short person with full back may be removed as in E. Pin a tuck across back extending it into a dart in front. Let out both underarm seams. The proper pattern alteration is shown in F.

8. Conclusions: Generous seams are necessary for correct fitting. A prefitting and altering of pattern is safer and easier. For quick work when cutting for unknown problems add about 2" to bottom of blouse and 1" seams elsewhere.

Fitting Round Shoulders

Exactly the same procedure (Fig. 17) is followed in fitting round shoulders as for any other prominent bulge.

Fitting Six-Gored Skirt for Prominent Back Hips

1. Measure amount that CB is higher from floor than CF, A (Fig. 18) .

2. Open one of the back seams and let skirt settle into easy position. Measure amount of spread, B.

3. Rip up and restitch both back gore seams to let out each $\frac{1}{4}$ of total amount of extra ease needed at hip—all the way down from hip to hem. From hip taper up to normal waistline, C, on all seams.

4. Make a new waistline at back as much higher as is needed for extra length at CB, graded around to match front at side seams. For slight changes, a deeper waistline seam across the front will help.

If waistline seam is not wide enough to provide this length at back, rip side hip seams and move entire back above the front, C. This will require cutting off lower front of skirt to match.

If side hips also bulge somewhat let out that seam similarly, especially if needed to keep silhouette seams centrally located.

Fitting Two-Gored Skirt for Prominent Abdomen

Figure 19 shows steps in fitting skirt for prominent abdomen, clearly a reversal of steps for prominent rear hips (Fig. 15).

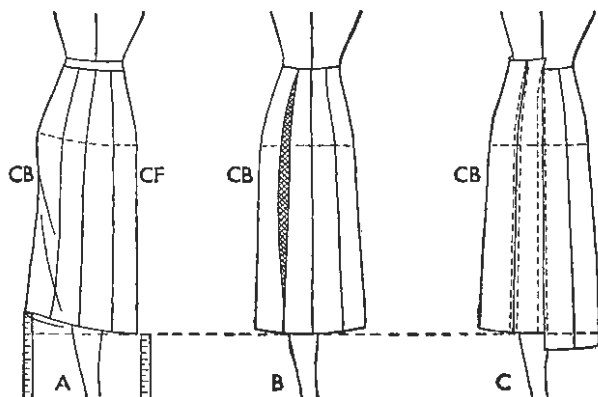


Fig. 18. Fitting six-gored skirt for large derrière.

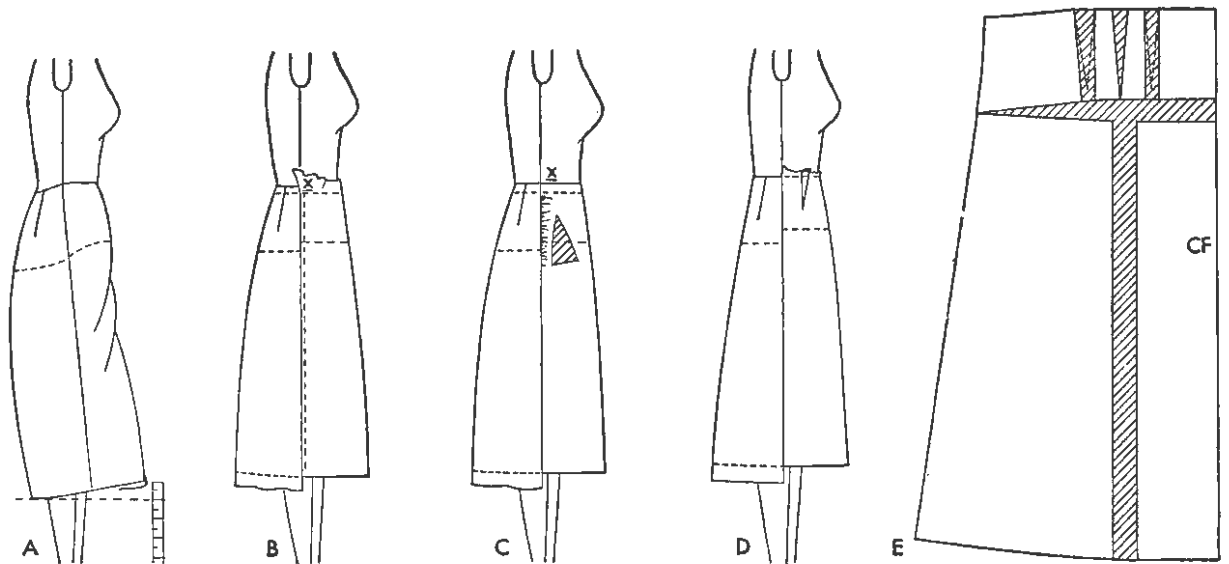


Fig. 19. Fitting two-gored skirt for prominent abdomen.

FITTING SLEEVES

Fitting Armhole

If the blouse underarm folds over, the underarm is too high or entire blouse too tight; or the back is too short with a full bust needing more bust dart underarm to match the tuck that ought to be taken across the back, F (Fig. 16). All this is blouse trouble but it affects the armhole appearance.

If the blouse bulges away at armhole front, pin a flat dart there to extend to the point of bulge at bust, A, B, C (Fig. 20). On the table slash one of the other bust darts until pattern flattens down. Place on fresh paper to copy. Use original pattern to shape a new lowered armhole and underarm seam of the same shape and size. (Principle: a large bust needs a wide dart.)

If underarm or shoulder seams have been changed in fitting, the armhole may need chang-

ing; place pattern back on the blouse to reshape the armhole so it will fit the sleeve. Or, you may pin the sleeve in armhole to balance grain and ease, thus establishing a new armscye line. Let the sleeve underarm follow the natural crease of the body, D; later, perhaps use pattern to cut a new armhole, smoother than your pinned lines.

If underarm seam was deepened in fitting, the armhole becomes pointed underneath, E. Trim below the notches to convert the shape to an oval.

If the sleeve pulls the blouse out of place when the arm is raised above the head, the armhole is probably too long or too low (the body and sleeve too short in underarm seams). For comfort in reaching, raise the underarm seam by letting out the lower armhole seam, or take deeper shoulder and neck seams, or set in a gusset. Dancers, musicians, and actresses require high smooth-fitting underarm areas. Many French dress designers stress this idea.

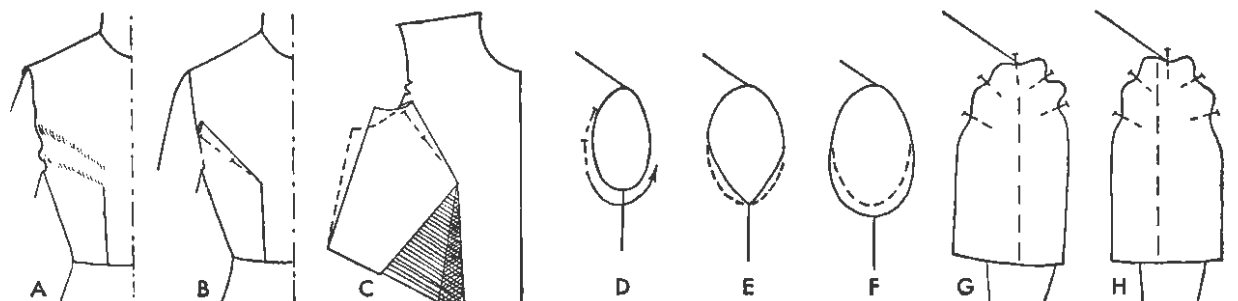


Fig. 20. Fitting armhole.

If a wide seam allowance makes the armhole temporarily too tight, clip seam at curves to help you decide. If it is really too tight, trim the armhole raw edge about $\frac{1}{4}$ " deeper below notches, but avoid removing much width, F, or sleeve will draw. If in extreme cases one must let out both shoulder and underarm seams, the size was too small in the beginning.

In testing an armhole, at the same time test the sleeve cap for correct ease and the right location of highest point. In G, too much ease at back and not enough at front indicated that sleeve needed to be shifted forward about $\frac{1}{4}$ " at top of cap, H. (As a rule notches are not changed.)

If armhole droops off the shoulder the blouse is too wide through the chest. Pin in darts or tucks from shoulder to bust or waist until shoulder seam is correct length; if they look right stitch them in; if not, correct pattern, Z (Fig. 5) and recut blouse.

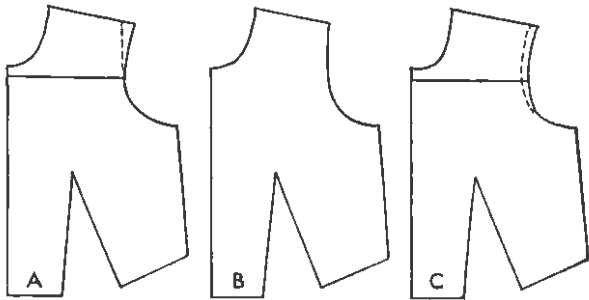


Fig. 21. Preserving shoulder extension. A and B, wrong. C, correct.

The armhole seam should be raised underneath the amount taken off at top; if it is too narrow, then lift shoulder seam. A correct pattern alteration for narrow shoulders or chest would have avoided all this trouble. It is fatal to cut off the shoulder extension (Fig. 21). Since the shoulder is naturally wider than the chest, the standard pattern shows an extension there of about $\frac{1}{2}$ ", A. To cut this off, B, gives a pinched-in look. If the shoulder seam is too long, use the original pattern to hollow out chest curve of armhole when you trim off the shoulder seam, tapering to the notches or below, C. (This change often makes the sleeve cap too short, a problem to be explained later.)

Sleeve Fitting

A well-fitted, standard plain sleeve shows the following characteristics:

1. It doesn't slip off the shoulder too far for comfort or style.
2. The curve of the armhole is smooth and gradual.
3. It appears loose enough to fit the upper arm but the eased-in fullness is not noticeably puffy or puckered.
4. It isn't so snug across the top that the blouse appears eased onto the sleeve; for example, across the back.
5. The eased-in fullness does not puff out more at the back than it does at the front of the sleeve top.
6. The crosswise grain is level with the floor everywhere above the elbow.
7. The lengthwise grain hangs straight from the end of the shoulder to the elbow.
8. There are no diagonal wrinkles on top or crosswise folds underneath near armpit.
9. A short sleeve does not poke out farther from the front of the arm than the back.
10. A tight-fitting sleeve has a dart or eased-in fullness to provide room at the elbow.
11. A long sleeve is not too tight around the lower part.
12. The seam does not twist. It ends on the thumb side of the arm.
13. The wristline stays over the prominent wristbone when the arm is bent.

At the First Fitting of Sleeve

A good procedure requires two or three fittings. For the first fitting in standard dressmaking, have sleeve pinned on (not in and not basted) right side out primarily to check width. Width depends on having sleeve pinned around armhole, and on having dart exactly at elbow.

In muslin, a stayline on the under part of the sleeve cap seam and a long loose machine stitch in the upper half pulled up for easing speeds the process. Clip the lower curves of sleeve seam; with seam line on seam line pin sleeve over the armhole right side out, G (Fig. 20). Match seam on seam, notches to notches, underarm seams, and high point of sleeve cap to high point of shoulder. Place pins parallel under arm for comfort, at right angles to armhole above notches—not too many—five will be about right so that we can judge the ease left between pins.

Both sleeves should be pinned in to balance pull on the blouse, rather than having only one sleeve in.

1. Fit first the sleeve below the cap for width—have sleeve about 2" looser at upper arm and 1" looser at elbow when bent; $\frac{1}{2}$ " looser below the elbow and $\frac{1}{2}$ " looser at wrist. If sleeve twists below the elbow, A (Fig. 22), the back of the sleeve needs to be longer—rip below elbow and push more ease up, B. If the dart is too low or too

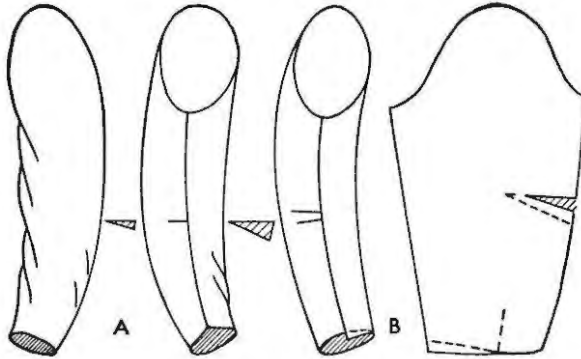


Fig. 22. Fitting sleeve at wrist and elbow—by providing more back length or a wider elbow dart.

high, rip it out and refold properly. Note alteration in Figure 5.

On a thin arm, if the sleeve seems too wide throughout especially in the cap, pin two long, narrow tucks between notches and top of shoulder but do not fit too closely. Alter pattern similarly, recut and fit again.

On a plump arm, if the sleeve draws in crosswise wrinkles and the cap is too long and narrow, let out the seams. Or in muslin slit the cloth and pin in strips wide enough for desired ease. Alter pattern to correspond (Fig. 5). If the sleeve cap seems to draw only at lower back, provide width and length there, 12 (Fig. 5). The crosswise cap line will now be off grain. Let it be—the extra length of underarm seam is to be eased at x to fit y.

2. See if the sleeve balances from front to back, A (Fig. 23). This problem is easier to see on a short sleeve.

If the bony knob of the upper arm is very prominent in front, the top of the sleeve will appear strained there and puff out more back of the shoulder seam; the lower edge in a short sleeve pokes away from arm at lower front, A. To remedy, push some fullness forward, thereby changing notch or mark that designates a match for the shoulder seam (since the sleeve is pushed forward, the mark must be moved back on the corrected pattern). It may be necessary also to let out the seam slightly around the knob and take a deeper seam on the back. (Principle: a bulge needs more width and length, a hollow less.) This alteration is on the sleeve cap and the armhole line should not be disturbed.

3. See if the crosswise grain is parallel with the floor, B (Fig. 23).

If the grain line curves up in the middle, the sleeve cap is too short either because the pattern was not well styled or because of too thick shoulder pads or square shoulders. Let out the top of the sleeve cap or take a deeper underarm seam in the sleeve but not the armhole. (Remove or reduce pads.)

If the crosswise grain line slopes, the sleeve will generally twist on the arm. If the sleeve is cut off grain, the only remedy is to recut it. Perhaps the sleeve is set in the wrong armhole—front to back rather than front to front. If none of these is causing the trouble, rip out the entire basting and move the sleeve around the armhole until the grain sets level, C. Pin the sleeve with the crosswise grain level so there is about 2" fullness left in the top part of the sleeve to be eased in. Then use more pins to see that balance is obtained, as in A. Note that the notches and underarm seam

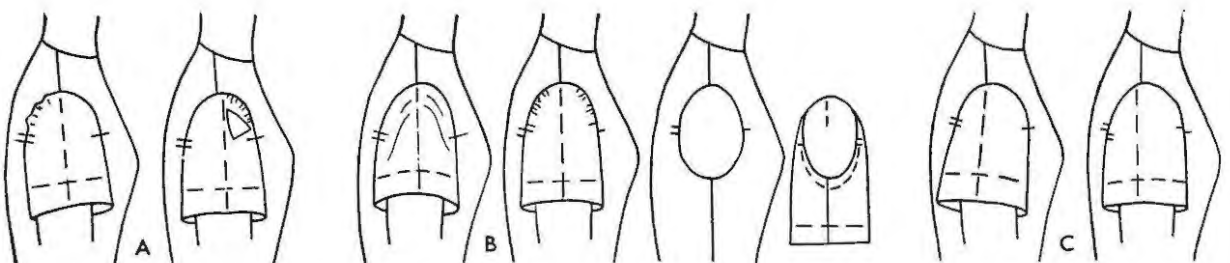


Fig. 23. Fitting sleeve cap: A, for bulging knob at front of shoulder. B, for too short sleeve cap. C, for tilting grain or notches incorrectly located (inaccurately cut).

of the sleeve no longer match those of the armhole.

4. Pull up the ease thread of the machine stitch to adjust fullness using pins to distribute it evenly. (This ease is later shrunk out by steam before basting or sewing sleeve into armhole.) Check again for width above notches.

After the First Fitting

With the ease pulled up and adjusted at the first fitting, unpin the armhole seam. Place sleeve cap over a pressing ham or the end of a tailor's press board. With a steam iron, shrink out fullness. Hold the long side (not the point) next to the ease thread to shrink out fullness in the seam only without a single pleat in it. Then press the sleeve cap itself. The sleeve is ready to baste-stitch into armhole.

At the Second Fitting of Sleeve

For the second fitting, the emphasis is on length. Changes indicated at the first fitting have been made. The sleeves have been basted in the armholes. Approve adjusted width, elbow dart, ease in armhole, balance at lower edge of short sleeve. Don't hesitate to move the ease into a new location if ease is not perfectly balanced front to back. If the ease is too great recut sleeve top by altering pattern to make it slightly narrower.

When the top is satisfactory, with arm bent mark wristline to cover prominent wrist bone. If the wristline slants up at the underarm seam, push more of the back up into the elbow dart (Fig. 22). When a good line is secured, the lower shape of the pattern is not straight across but curved with deepest part of curve on back near little finger. (The elbow dart requires length as well as width.)

A long tight-fitting sleeve should be comfortable but snug enough that a placket is required to get it on and off. The thumb-side seam of the sleeve is often used, but many designs accent the outer or little-finger side of the sleeve. Divide the lower sleeve with about two thirds for the front (top side of arm) and one third for the back (palm or under side resting next to body). The placket line slopes slightly toward the point of elbow bulge, C.

Armhole Finish

The set of the sleeve cap is the most significant feature in a good-looking garment. The most com-

mon defect is uneven distribution of fullness in the cap due to faulty basting for stitching, not knowing how to ease or shrink out fullness. But fullness of 1" to 2" must be there because sufficient cloth must lie across the fleshy arm to be easy in appearance and comfort. Only in shirt and other full sleeves is extra width thrown there in designing so that less can be left to be eased into armhole.

Tailoring, handling the fabric, and just good sewing will maintain the right ease at armhole to create the smooth look. In the final press, the seam currently is pressed down into the sleeve. A pad that fits the body and armhole may be tacked to the shoulder seam. At its outer edge have the shoulder pad even with the raw edge of the seam.

Fitting the Waistline

At the first fitting have the waistline of the skirt stay-stitched and pinned to a belt of the right size if it is a separate skirt, or to a tape of the right length if the skirt is to be sewed to the blouse. The belt is previously interfaced. The bottom of the blouse may have gathers adjusted and pleats or hems stitched across the bottom. On both skirt and blouse, CF's and CB's are indicated by notches or short slits.

The blouse may be tried on separately or at the time of skirt fitting; if it is too long pin a tape over it at the waistline, adjust evenly, then chalk-mark a line where desired. On the table fold along CF and CB so that you can trim off the lower edge with right and left sides alike, leaving ½" seam allowance.

To fit the skirt, the pattern itself should provide 1" ease above the finished belt or tape length or ¼" extra for each quarter of the skirt top—more will be desirable if the hips round out very suddenly, but not so much that puckers are evident. In addition to the stay-stitching at top of skirt, both hipline seams should be stay-stitched for 7"-9"—the depth of the placket; not near the seam line but ⅛-¼" from the raw edge so that slide-fastener finish will not expose this stay-stitch. Lengthwise seams are either pinned, or baste-stitched with the grain (usually from hem to waist) for the first fitting. Pin the belt or tape first on the right half of the skirt from CF to CB, ¼" of ease at least on each quarter of the top. Then make the left front match the right front in length, and the left back match the right back in length.

Try on. Fit the hipline as discussed previously. Take up or release waistline, leaving underlap on belt extension of back. The front end of belt should finish flush with the front placket on left hip. If the top of the skirt is too full to ease nicely, stitch in small waistline darts to secure a smooth hip; if the top is tighter than the belt or tape, release seams and darts until there is $\frac{1}{4}$ " to 1" of ease.

After fitting, if a separate skirt, stitch and press seams, apply pocket and zipper, before permanently finishing belt.

If a dress, sew waistline seam with blouse and skirt right sides, centers and seams matched; neaten the $\frac{1}{2}$ " seam. Clip concave curves that are to be turned back. The placket will fit the waistline curve only if the waistline seam is stitched narrower at the last half inch.

When a separate belt is worn over the waistline, a plain skirt should evidence no folds, tucks or pleats.

Fitting the Skirt Hem Line

If the skirt has been altered in the pattern or properly fitted on the model, the hem line should hang an even distance from the floor. If it is not level, study the fit again to see if all is well, then place pins at CF, CB, and side seams the same distance from the floor. Fold skirt along CF and CB so that the right and left sides can be trued off alike. Place the original pattern on the skirt and follow it to cut an even curve.

If gores are very circular the weight of the fabric may have caused the bias parts to stretch. It is well to allow skirts to hang a day or two before trimming—even before stitching the lengthwise seams permanently in some cases. Only in very unusual cuts or fabrics will it be necessary to establish a hemline by methodically marking it with many pins. You may look in a mirror and judge the amount of unevenness for yourself with a yardstick and a few pins.

SUMMARY

1. Exercise great care to buy correct size.
2. Adjust length, waist, hip, and bust measures by comparison of tape-measure measurement of body with corresponding measures printed on the pattern envelopes. Do this before trying on the pattern. Use arithmetic, not trial and error.

3. Alter patterns for simple width and length changes by tucking or redrawing seam lines.

4. Pin fit patterns on body to check changes and lack of balance due to hollows or bulges.

5. For bulge problems slash (both lengthwise and crosswise intersecting at point of bulge) and spread. The amount of spread is based on the amount garment is off balance.

6. For hollows tuck instead of slashing and spreading as for bulges.

7. For both bulges and hollows at least one of the alterations should bisect a dart.

8. Spreading a slash across a seam line requires that the adjoining seam be slashed and spread the same amount, unless a dart is made out of the spread to keep the finished seam the original length.

9. Make a trial garment (percale or muslin "shell") and fit for details—either when developing a foundation pattern, or when preparing a new complicated pattern like a suit or coat.

10. After pin fitting garment or trial shell, correct pattern to match and use corrected pattern to recut the fabric especially if you are not experienced in cutting good lines free-hand.

11. Altering a pattern by any method should create the same effect as obtained in pin fitting.

12. Redrawing seams on a paper pattern as a method of alteration should give the same results as fitting, but it is a less accurate method for amateurs—than either fitting on the person or altering by slashing and spreading at the table.

13. Knowledge of the role of the basic dart in relation to a body bulge is essential for efficient alteration or fitting.

14. A body bulge and its controlling dart affect ease, line, grain, set, and balance. The trained fitter uses these factors to diagnose and remedy fitting problems.

15. Width and length are the needs for a bulge. To obtain length a lengthwise seam must be ripped so the piece may be raised. This gives length over the bulge but too much at the side seam above the bulge level where the excess must be eased in or folded into a dart. To obtain width let out the lengthwise seam.

16. In altering a pattern or fitting garment by any method, the corrected seam lines need "truing up"—easily and accurately done by laying the original pattern down to coincide with new chalk or pin marking, then following the pattern edge for the new cutting line.

Chapter 3

RELOCATING THE BASIC DART

The Principle of the Basic Dart

In draping a flat piece of cloth over the curved form of the human body, the designer is forced to recognize the presence of drooping folds or wrinkles, A (Fig. 24). In cutting a blouse on a form, the designer causes these wrinkles or folds to fall where she chooses. Keeping the crosswise grain horizontal over the chest she folds the excess fabric into a neat triangular dart with the point on the fullest part of the bulge or point of bust and the wide end at one of the seams—waist, underarm, or shoulder, B, C, or D. Excess fabric is cut off at seams of neck, shoulder, armhole, underarm, and waist, but all the wrinkles are included in the one dart. We call this one dart the basic or fundamental dart. It may be arranged in any position radiating from or pivoting about the highest point of the bulge. A dart is a controlled wrinkle—a wrinkle is a potential but uncontrolled dart. The larger the body bulge the

wider the dart must be. If not enough fabric is included in this basic dart a wrinkle, though smaller, will still remain. It is evident that wrinkles on the full busted figure almost always indicate that a wider dart is needed. A flat busted figure such as a young girl's will thus require a narrower dart.

It is noticeable that the angle included in the basic dart could be measured in degrees and is just the same degree of angle whether it is a shoulder, waist, or underarm dart, but because the shoulder dart is the longest it appears widest at the cut end. This fact is simply an example of the geometric principle that the same angle extended to the circumferences of concentric circles describes a small arc on the small circle and a larger arc on the larger circle (Fig. 25).

A single basic dart on a large figure generally is not satisfactory because it does not divide the broad area into narrower slenderizing areas and because the bias of one seam is too great. Hence,

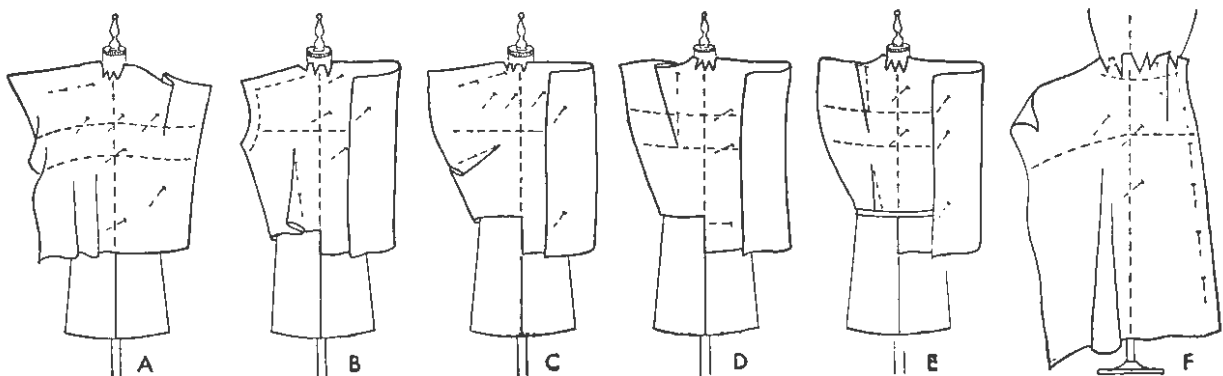


Fig. 24. Draping cloth over a model to fit by control of a fundamental dart.

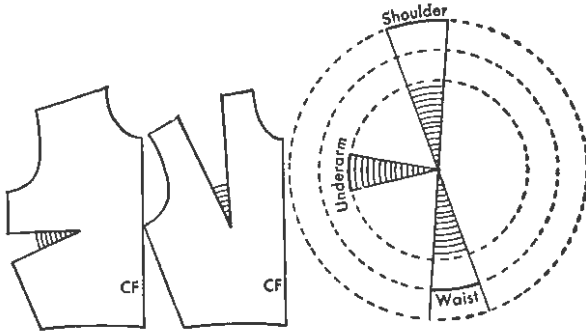


Fig. 25. A dart is a segment of a circle. The same degree of angle appears larger only at the cut end where the dart is longer.

good designers prefer to use two or three smaller darts which give gradual ease throughout the garment and offer more places for fitting. We should learn how to change this dart by flat pattern manipulation on a piece of paper not by expensive draping in cloth.

The same procedure in modeling fabric on the form is followed in draping the back across the shoulder blades; in draping the sleeve to fit the elbow; and in draping the skirt to fit the slight curve at front over the abdomen, the large curves over the side hips and the back hips or *derrière*, B (Fig. 15). The method of changing the location of a basic dart in a pattern is the same in all these pieces.

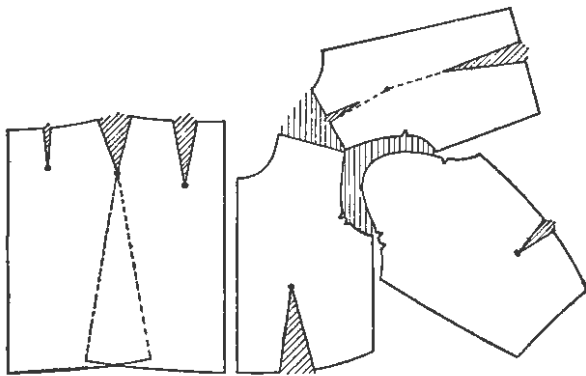


Fig. 26. Darts control seven major body bulges.

The body is made up of many subtle curves, but there are some major ones which we call bulges. They are the point of bust, the end of the shoulder, the tip of the shoulder blade, the elbow, the abdomen, the side hip, and the back hip. Each requires a basic dart (Fig. 26). The end of the shoulder dart shows up as the shoulder seam, but it is used as any other basic dart in pivoting in raglan sleeves (Fig. 123), and the side hip dart is usually a side seam of the skirt.

Minor curves or bulges that require dart manipulation either in seams or circularity are illustrated in a wide neck, prominent front hipbone, protruding ribs, thick thighs, and fleshy midriff. Conversely, examples of hollows requiring narrower darts are flat chests, thin necks, and sway-backs.

This book concentrates on designing by the flat pattern method. This chapter shows how to change the location of the basic dart in a paper pattern—an essential technique in creating original, unusual, or becoming designs. Also, these techniques are necessary to understand and execute both the alteration of patterns and the fitting of a garment in actual fabric. The following examples illustrate one of the most fundamental principles in pattern making.

Moving Basic Dart from Waist to Shoulder

Practical Dress Design uses the following method of changing the location of a fundamental dart. Master every detail because the complete procedure is a standard technique used throughout the book.

1. In fresh paper cut a copy of the block pattern (having a waist dart but no seam allowances). Outline the dart but do not cut it away. (Practice first with quarter-size or half-size patterns copied from Fig. 1 or the Preface, then in your own pattern.)

2. Close the basic dart by folding its front line to meet the back line and pin in place, thereby creating a bulge in the pattern, A (Fig. 27). The pattern is now almost a hemisphere.

3. Draw a line from the point of this dart up to or near the mid-shoulder to create a new dart line becoming to you. Generally, the dart should enter the shoulder seam at right angles to it. On coats, it is often placed nearer the neckline to be covered by a lapel. Often it is desirable to have it match the back shoulder dart. Usually it looks better if the front edge is not exactly parallel with CF, but slanting toward CF at the bottom in harmony with the natural body proportions.

4. Cut along this new line until the pattern flattens out, B. The space left from spreading the slash is now the new dart.

5. Arrange on a fresh piece of paper to copy in pencil, exactly outlining the new basic dart. (It may be shortened about $\frac{3}{4}$ " for a blouse.)

6. Temporarily pin in this new dart before cutting out the pattern or adding the seam allowances, C. Then upin the dart so pattern will

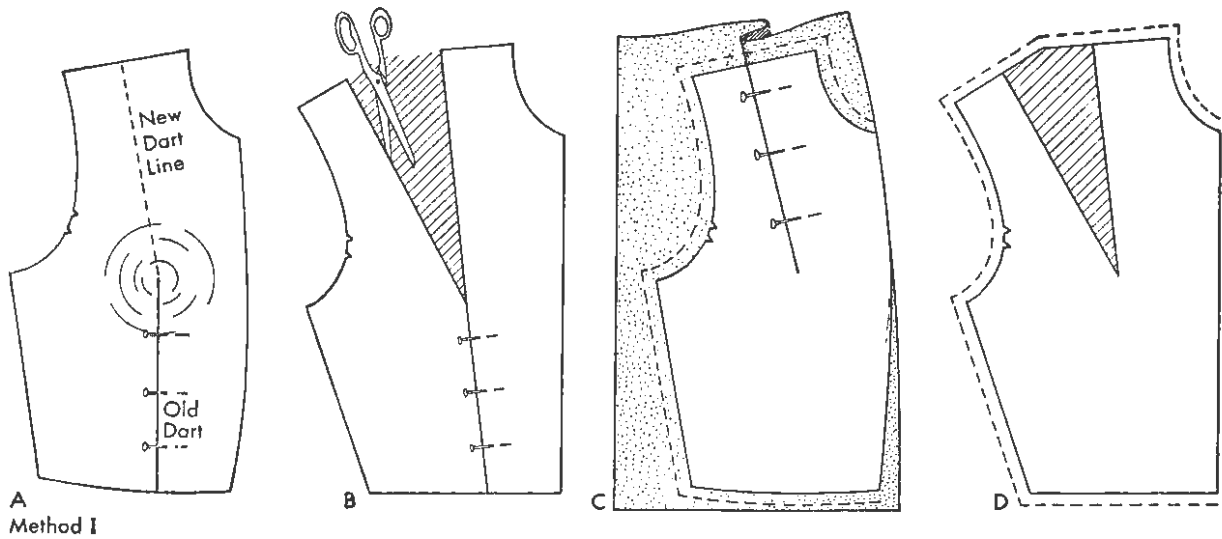


Fig. 27. Standard procedure for relocating basic dart, Method I.

flatten out ready to use, D. You may find B useful as another master pattern or sloper, but use D for a garment because the dart is shorter.

The above method solves more pattern problems than does the pivoting method and beginners make fewer errors. It enables the designer to try the bulging block pattern on a model or on herself before a mirror to sketch in a more becoming location for the new dart or darts. A three-dimensional effect is different than the view flat on the table.

Pivoting Basic Dart to a New Position

However, the method of pivoting the master pattern has the merits of being quicker and of clarifying the dart theory. It works well on simple changes but there are chances for error if many or complex darts are to be created; besides, this method marks the master pattern, leading to later errors.

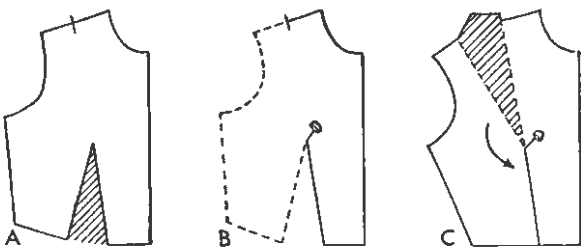


Fig. 28. Pivoting pattern around the point to relocate basic dart, Method II.

1. Near the center of the shoulder, place a mark on your block pattern where you want the new dart, A (Fig. 28). Start to copy on a fresh piece of paper, B. Begin at the front edge of the basic dart and trace the waistline, on up CF, around neck and shoulder as far as the mark made for the new shoulder dart.

2. With a thumbtack, stickpin, or pencil anchor the point of the dart. Pivot the blouse pattern until the waist dart is closed, C. Automatically a gap is left at the shoulder to become the new dart.

3. Complete by tracing the new dart and on around the pattern. True up all tracings.

4. Draw lines to complete the new dart, which may be shortened, as in B, Figure 27.

5. Fold in the new dart, add seam allowances, and cut out, C. The front should lap over the back on the right side so that the fold underneath turns toward the center.

Changing Waist Dart to Underarm

Use the same general technique as in Figure 27.

1. Copy basic pattern, A (Fig. 29).
2. Fold in basic dart (waist) to make a bulge, B.
3. Draw line for new dart from underarm seam to point of bust. It may be horizontal or slanting up.
4. Cut along this new line over to point of bust until pattern flattens out, C. The space left is the new basic dart. This pattern may be used as another sloper.

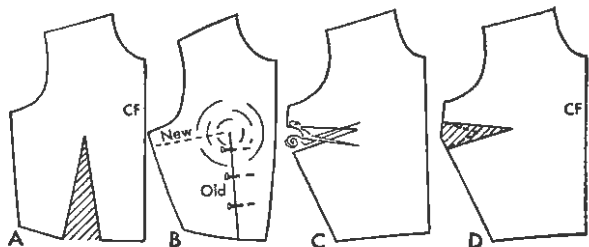


Fig. 29. Changing waist dart to underarm location.

5. Arrange on a fresh piece of paper to copy. To convert the new basic dart into a becoming dressmaker's dart shorten it—about 2" if slanting, or until $2\frac{1}{2}$ " long if horizontal, D. The slanting dart is slightly decorative, but the horizontal is merely functional and should be concealed under the arm.

6. Temporarily fold and pin in the new dart before cutting underarm seam—with or without seam allowances according to later use, as in C, Figure 27. On the wrong side vertical darts fold toward the center, horizontal darts fold down.

Changing Basic Dart in Any Direction

The above techniques show that a basic dart can be swung or pivoted around the point of the bulge on any radius. You can relocate the dart at any angle becoming to you, or to harmonize with a design in the fabric or another style line in the dress design (Fig. 30).

1. Copy pattern with basic dart.
2. Fold in basic dart to make a bulge.
3. Draw in line for new dart location, as 1, 2, 3, or 4.
4. Slash on this line to point of bulge. Let pattern flatten out leaving a gap which is the new dart.
5. Copy on fresh paper. Fold in the new dart before cutting around edges, with or without

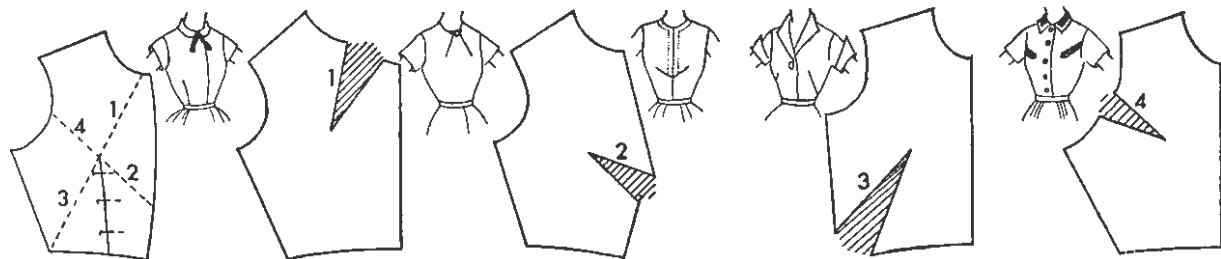


Fig. 30. The basic dart may be radiated in any direction around the point of the dart or bulge. These four are often used, though not as commonly as waist, shoulder, and underarm darts.

seams, hem, or overlap according to later use.

You now have three basic slopers, Figure 29, A and C; Figure 27, B. It is more practical to begin working with one in which the dart does not conflict with new details, but any one can be used. The waist dart is, perhaps, the most frequently used because it opens into a seam which will not need to be closed very soon and it adds a more slenderizing line.

Principle Applies to Other Basic Darts

The front of the blouse, because it is nearer the face, is the favored area for pattern design, but variations are desirable in skirts, sleeves, and backs as well as fronts. Figure 31 shows application of the standard method of rotating a dart in other positions around the point of each major bulge, but details and variations will be shown in later chapters.

Relocating a Dart by Redrawing

In order to suit another style line or to make proportions more pleasing, one may decide that the dart should be moved slightly. As a rule it is safe to move the point of a dart 1" to $1\frac{1}{2}$ " away from its original position, but more than this amount may create unsightly diagonal wrinkles.

The technique is simple but should be accurately executed (Fig. 32).

1. Make a paper copy of the dart and erase the original lines. (This pie-shaped piece or dart can be saved and used over and over, if the point always ends on or near the original point of the bulge.)

2. Use the paper copy as a pattern to trace around—moved into a better position.

3. Fold in the new dart and recut the seam at the wide end of the dart.

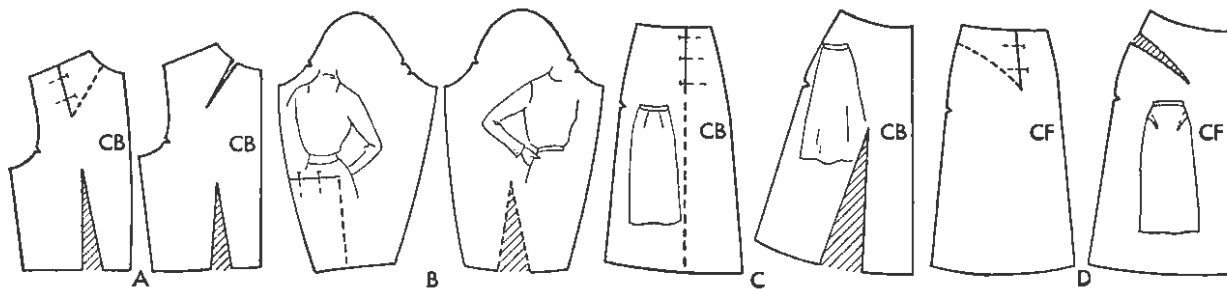


Fig. 31. The basic dart in any pattern part may be relocated by the same method as used in the blouse front, i.e., pin in the basic dart, draw a line (dotted) for the new dart, slash, and let pattern flatten out to reveal new dart space.

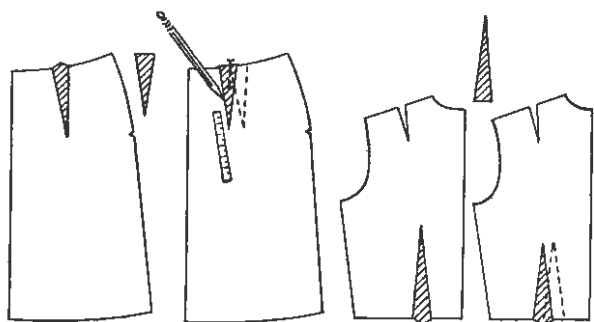


Fig. 32. Changing the location of a basic dart by simply redrawing, Method III.

A variation of this method consists of measuring the dart at the wide end. Erase the lines. With a ruler measure and redraw a new dart of the same width and length. Fold in and correct the seam end of dart shape. Of course, you can always fold in the old dart and slash for a new one.

Checking Patterns

Make a copy of your original master pattern and pin in the basic dart to make a bulge.

Pin in the dart or darts in your new pattern to make a bulge. Slip the new over the original. The bulges should nest or cup over each other exactly. The patterns should fit in every detail in length of all edges. Of course, when unpinned they will spread differently—one requires more cloth in the upper area, the other more below; in one the

bias of the underarm seam is greater, and so forth. These differences influence you in planning a design; for example, for stripes, in making over an old garment, or in fitting a garment that has ample ease in the upper area but not much in the lower.

SUMMARY

A basic dart may be relocated without changing the fit or size—all seam lines should be the same length as in the original pattern.

A basic dart may be in any position radiating from the point of the bulge and ending on any outer edge.

The larger the bulge the wider the basic dart.

It is the angle that counts—it remains the same no matter in what direction it lies. Longer darts are wider at the seam end than short darts.

ASSIGNMENT

1. Select a pattern book and count how many blouses having just one dart will have it at waistline, how many at shoulder, and how many at underarm.

2. Cut out and mount examples of the three basic darts, then examples of the three other locations as in Figure 30.

3. Redraw the location of the back shoulder dart on your foundation pattern. Why would you ever do this?

Chapter 4

CREATING STYLES THROUGH DART MANIPULATION

Designing creatively requires three major skills, all of which can be learned. If you do not have these skills the practice of making patterns step by step in this book will help you develop them. If you already have them to some degree you can attain more polish by more care and practice and by attacking more complex problems. A good teacher or supervisor should be asked to criticize your work, but you should be self-critical, too. Examine examples of high-grade patterns—both commercial ones and ones shown by your instructor. The three skills are:

1. Technical knowledge—knowing not only the “how” but the “why” in the modern block pattern system. The principles are developed in the various chapters of this book.

2. Craftsmanship—being neat, accurate, and direct in working, not messy, careless, dawdling. Because you are neat in sewing or art work does not mean that you are necessarily so in pattern work, but general habits of accuracy should help. Lines in pattern making must be true and should not be sketchy when completed. Good tools help. Two are essential—a pencil, not too hard, not too soft, such as #2, and a good eraser since a designer must not be content with the first line drawn. After tracing around a pattern always true it up with ruler, yard stick, or a curve. Have long cutting shears to cut exactly with long clean strokes on the lines drawn. Cultivate precision with fair speed. Check adjoining parts and make notches match. Do not be too easily satisfied.

3. Design—applying the fundamental art principles of harmony, proportion, balance, rhythm, and emphasis both to structural parts and decora-

tion. Good taste may be natural to you but the study of design goes farther and is needed to secure true beauty. Use design principles in evaluating patterns. Modern design stresses functionalism, i.e., the design should conform to the purpose and the decoration should not interfere with its function. Design principles are employed throughout this book, but their basic application is so extensive that you should study other publications for details.* Simplicity (not to be confused with plainness) is important, hence all the more care must be exercised in placing and drawing lines. Simplicity in a distinctive dress design is fairly expensive because few pattern makers know how to use the theory of the dart in cutting. Cleverness of cut combined with simplicity rather than fussy trimming lends character.

Designing patterns requires consideration of the type of garment and fabric suitable for the purpose. Texture, pattern, and color of the fabric should be a part of the mental picture, but better still actually at hand. Whether to gather or pleat, whether to make a vertical dart or a diagonal one, how much to gather or ease can be determined only by handling the actual fabric. Experience, of course, helps but is not sufficient in itself and often prevents coming out with a new use of an old idea. Study of historic costume in books and museums is necessary as well as acquaintance with modern ways of living. Serious study of textiles, fashion trends, the great designers, and fashion

* Goldstein, Harriet and Vetta, *Art in Everyday Life* (New York: The Macmillan Company, 1940); and Morton, Grace Margaret. *The Arts of Costume and Personal Appearance* (New York: John Wiley and Sons Inc., 1943).

magazines will help to develop your style sense and ability to create new ideas. In order to execute your ideas, whether they are your own original ones, or just something you've seen or a combination from different sources, deciding where to locate the darts is all important. How to manipulate them is essential.

The basic dart, though functional, may be arranged at various angles to give a more stylized effect than the standard locations afford. It has already been shown (Fig. 24, E) that several darts instead of one give a softer more feminine effect, and that basic darts shortened or left partially open (Fig. 29, D) release the severe effect of darts stitched to the point of bulge.

This chapter shows how to divide the basic dart and how to shorten it. In practicing these techniques use half-size or quarter-size patterns at first, then standard sizes. Make up some of the half-size patterns in actual fabric and test them on the half-size model form. Stitch on the machine with long stitches without basting (Fig. 33). After a dart is stitched and approved press it over a rounded press cushion to retain that molded curve the dart has created—never smash it flat. Actually only one fourth as much fabric is used as for the standard size pattern. Often just half a blouse without seams is sufficient to check on proportions and the success of the pattern. Vertical darts are usually pressed to turn toward the center of the garment on the wrong side, horizontal ones to turn down on the wrong side.

Aid for Dressmaker or Model Maker

It is easier to stitch a dart accurately if the middle fold line is clearly marked on the cloth. Hence, the designer should draw this line bisecting every dart in the finished pattern. For narrow darts this line is most important. It and not the edges should be accurately traced, then directions given for proper stitching such as, "Stitch dart 1/8" wide at seam tapering off at last perforation." Such directions are part of the designer's job and it is her responsibility to see that the model maker does not have to trace too many lines. A good rule is to trace each edge and the center of ordinary darts, but only the center of narrow ones (Fig. 33).

Dividing the Basic Dart

1. As in Figure 30, make a copy of the foundation pattern, preferably having the basic dart not in the area where new ones are desired. In Figure 34 we are using the underarm dart sloper, A.
2. Fold lower edge of the basic dart and lap it over to the upper edge of the dart. (Either pin it or fasten in place with Scotch tape.)
3. Draw in two new lines for darts, one shoulder and one waistline, B.
4. Slash on both lines almost to the point of bulge. Let the pattern flatten out leaving gaps for the two new darts, C.
5. Arrange on fresh paper. The slashes may be separated equally, C, or more space may be left in one than the other, D and E, to suit your

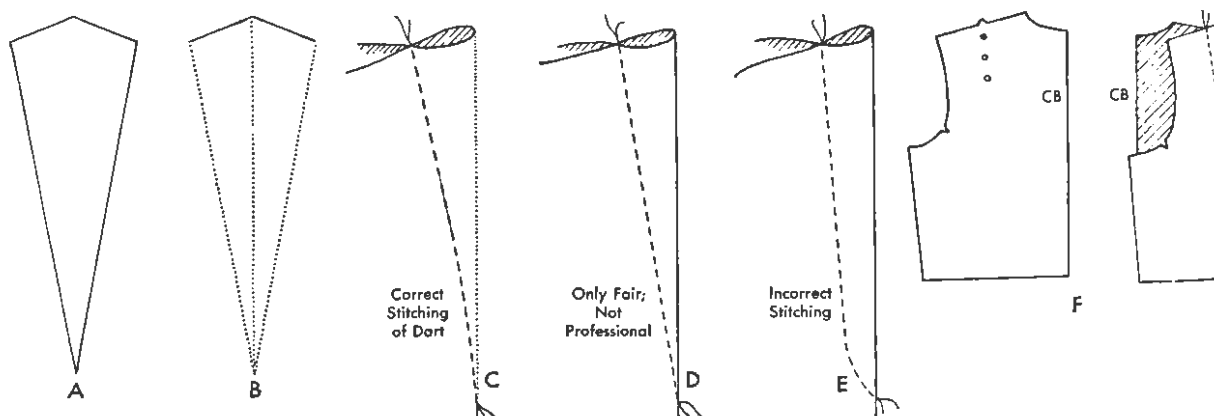


Fig. 33. A, large dart will require time to match lines for stitching. B, large dart bisected and correctly traced for ease in folding to stitch. C, long dart tapered in slight curve while stitching will fit body better. D, only fair, follows straight lines; not professional as in C. E, very poor, will pouch. F, correct marking for narrow, short dart as generally used at back of blouse.

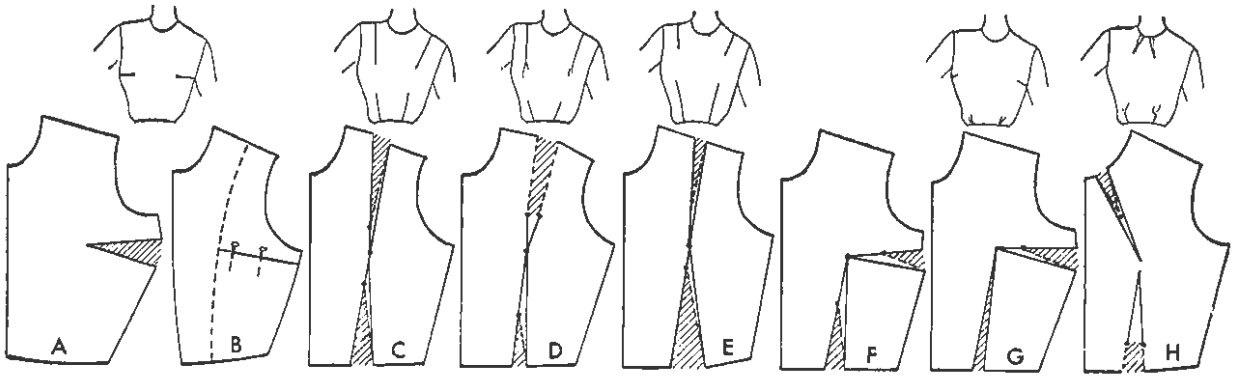


Fig. 34. Dividing one basic dart to create two new ones at different locations.

own idea. In studying a sketch observe such details closely.

6. Make a dot mark to show how far you want each dart to be stitched—the shoulder dart about 1" above the point of the bulge and the waist dart about 2" below.

Draw in these new dressmaker's darts. Fold them in before cutting the seam lines.

In pattern F the basic dart is divided between waist and underarm and both shortened. In G, more of the basic dart is left in the underarm dart and only a slight amount in the waistline. Almost all patterns without a visible waist dart should have this narrow $\frac{1}{4}$ " to $\frac{1}{2}$ " amount left to be eased in during dressmaking giving just the right amount of fabric to cover the body rib cage without its being noticed.

Moving Dart in Other Directions

In H (Fig. 34), a rather narrow dart instead of a wide one is left in neckline to avoid a bulky seam that is to be finished with a narrow binding; a very wide dart there could not be stitched to such a short point without pouching at the end. In H, the waist dart is marked to be stitched up

only about 2" leaving a soft ending. This is a dart tuck—watch that it is accurately marked so that it is not stitched up the same width all the way (as a real tuck) or the top may be too tight at the midriff.

The basic dart may be swung into armhole, neck, and center front seams in the same way that it was moved from waist to shoulder or underarm. Shorter and narrower darts should be used in entering armhole, neck, or center front as a rule because they are less bulky and the grain is not changed drastically in order to minimize the dressmaking problem.

Dividing One Dart into a Group of Darts

If one dart in a location seems bulky or uninteresting, it may easily be divided.

Method I

1. Make a paper copy of the single dart, either the basic dart or a dressmaker's dart. Erase the drawing, A (Fig. 35).
2. Fold the triangular wedge into two or three equal parts. Cut apart.
3. Place the parts in symmetrical arrangement

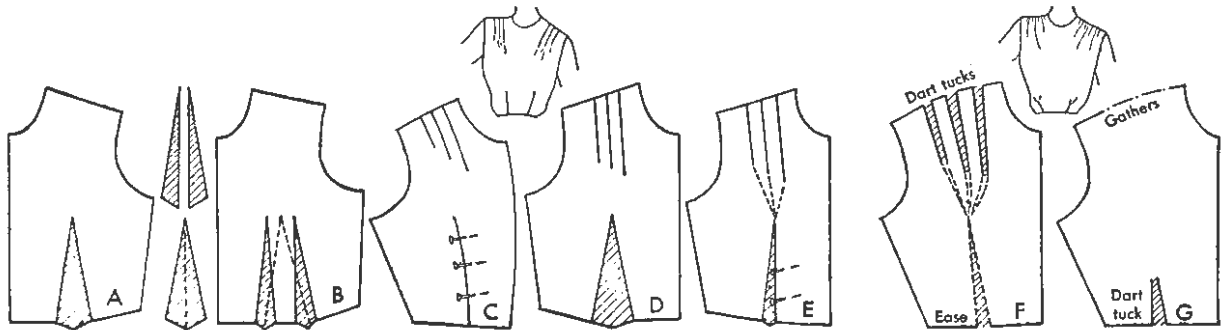


Fig. 35. Dividing one wide dart into groups of three or more narrow darts. B, Method I. C, D, E, F, Method II.

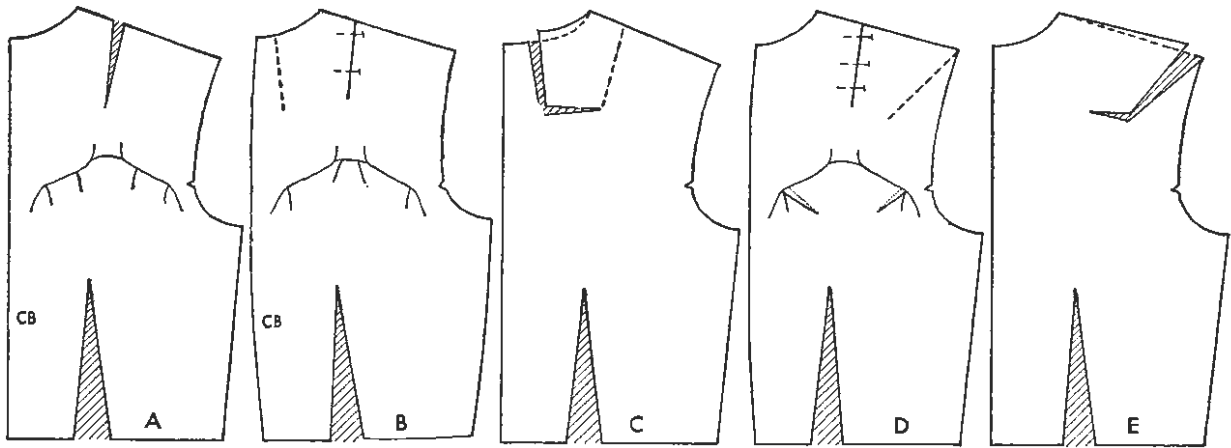


Fig. 36. Changing location of back shoulder dart.

to form a group near the original dart location with the points not over 2" from the original point and the wide ends at edge of pattern, B. Trace around pieces, true up with ruler. Fold into position before cutting edges of pattern.

This method is limited to a group entering the same seam; for example, it will not work if one dart is placed at waist and one at underarm.

Method II

1. Begin with copy of foundation pattern, with basic dart folded and pinned or taped to form the basic bulge. Hold over form to sketch location and length of new darts, C (Fig. 35).

2. At the table, draw in the two or three new dart lines with a ruler, D, either parallel or fanning out at the wider part of the body, narrowing at the smaller circumference. Mark desired endings for each dart—they may be level or graduated in length.

3. Cut along each line but this does not flatten the pattern. At end of each line turn shears and slash free-hand over to the point of bulge. Let pattern flatten out to leave the two or three spaces for the new darts. Make them equal. Trace around spaces as far as end of marks.

4. If they seem too wide or if you think a little ease at the waistline would be more consistent open the basic waist dart $\frac{1}{4}$ "– $\frac{1}{2}$ ", E. This is a new technique that saves slashing and spreading a narrow amount.

5. Fold in the new darts as dart tucks before cutting the shoulder seam. If they are fairly narrow they may be stitched to a point even though they are shorter than the basic dart, but the spaces

between will be wider at the bottom. (In such a design the darts will look better if they are the same length, not graduated. One could draw the lines in D so they are farther apart at the bottom, then when stitched in F the dart lines will be parallel if the darts are tapered in stitching.)

Using Basic Dart for Gathers

In Figure 35, G, an exact copy of F, the dart lines were all omitted. The shoulder seam, now a convex curve, is long enough to be gathered, shirred, or smocked. There will be no extra fullness either at or below the point of bust.

ASSIGNMENT

1. Use method in Figure 34, B and C, to obtain two darts like Figure 35, B. The result should be identical patterns.

2. Use method in Figure 35, A and B, to make three shoulder darts as in Figure 35, C. The results should be identical.

Changing Back Shoulder Dart to Neckline

1. On a copy of the back foundation blouse pattern draw in the proposed new dart line so that it slants away from the CB $\frac{1}{4}$ "– $\frac{1}{2}$ " at the end point or so that the center fold line of the dart is on the grain, B (Fig. 36).

2. Pin in the original shoulder dart to make a bulge in the paper.

3. Slash the new dart line to the end and across to meet the point of the old dart line.

4. Flatten pattern out. Copy on fresh paper.

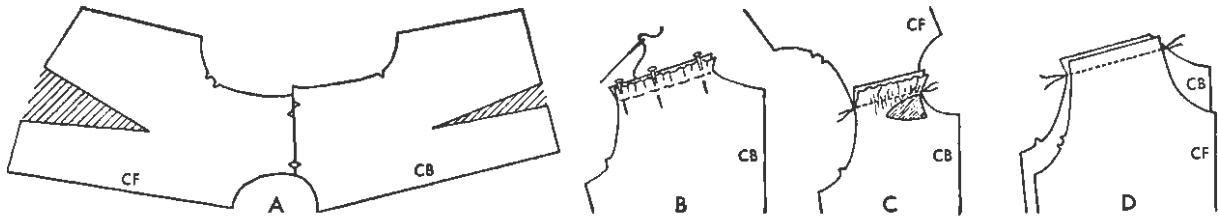


Fig. 37. Back shoulder seam is longer than front, A. The ends should be matched in B and C so that armhole and neck seams are unbroken curves. D, incorrect matching.

Fold in the new dart before cutting neckline. You will need to form a transitional neckline on the jog made as shown by the dotted line, C; or cut CB a little higher at neckline for round shoulders. Generally it is better to leave part of the original dart in the shoulder seam to be eased to the front in dressmaking. Transferring only half of the basic dart to the neck distributes the cloth over the shoulder "hump." In D and E, a more decorative location for the basic shoulder dart is shown but the dressmaking would be more difficult. Why?

Easing a Seam

Amateurs often do not know why the shoulder seam of the back is $\frac{1}{4}$ "– $\frac{1}{2}$ " longer than the front—in sewing they push it out in neck or armhole seams and trim it off. Then the back of the blouse is too narrow. But any good dressmaker can ease in this amount either by hand or machine and steam press it until a smooth seam results (Fig. 37).

Shifting Back Waist Dart to Underarm Seam

Because the lower back is relatively flat, if the model has good natural posture, it is possible to remove the back waist dart (Fig. 38). By drawing

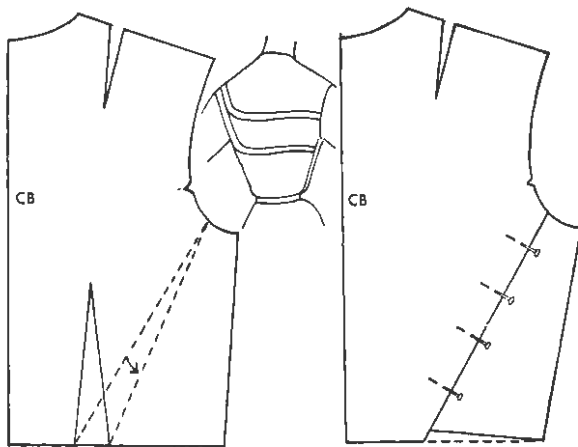


Fig. 38. Shifting back waist dart over into underarm seam.

change the point of the dart to lower armhole, 1" or 2" from underarm seam, A. Fold and pin in the new dart before cutting waistline seam, where you must correct it with a transitional (dotted) line, B. If some of the dart is not folded out the little ease left gives a softer effect. Such a pattern is sometimes useful in sun-back and evening bodices.

SUMMARY

1. A single basic dart is usually too wide to look good. Very wide, it will pouch out if shortened even slightly. For a large figure it should be distributed into several narrower, shorter darts.
2. A narrow, unclosed dart may be eased into the seam.
3. A wide, unclosed dart may serve as a gathered area.
4. A dart that is stitched only part way is a dart tuck and provides more drape and softness than a completed dart. Most people look better in waist dart tucks ending 2" below the bust, but waist darts stitched clear to the point are youthful if one is slender.
5. In stitching dart tucks do not carelessly stitch them as tucks—they must taper ever so slightly.
6. A dart tuck is usually stitched on the wrong side through two layers of cloth, but it may be stitched right side out giving a pleated effect. A dart pleat is stitched on the right side through three layers; since it is decorative longer stitches look more tailored.
7. Leaving the basic waist dart partially open ($\frac{1}{4}$ "– $\frac{1}{2}$ ") before changing its location in making a pattern provides the subtle ease at waistline that most professionals leave and most amateurs overlook.
8. Where several darts are used to distribute control and ease, usually it is better if dart tucks, ease, and shortened dressmaker's darts are used with none or no more than one stitched to the point of bulge.

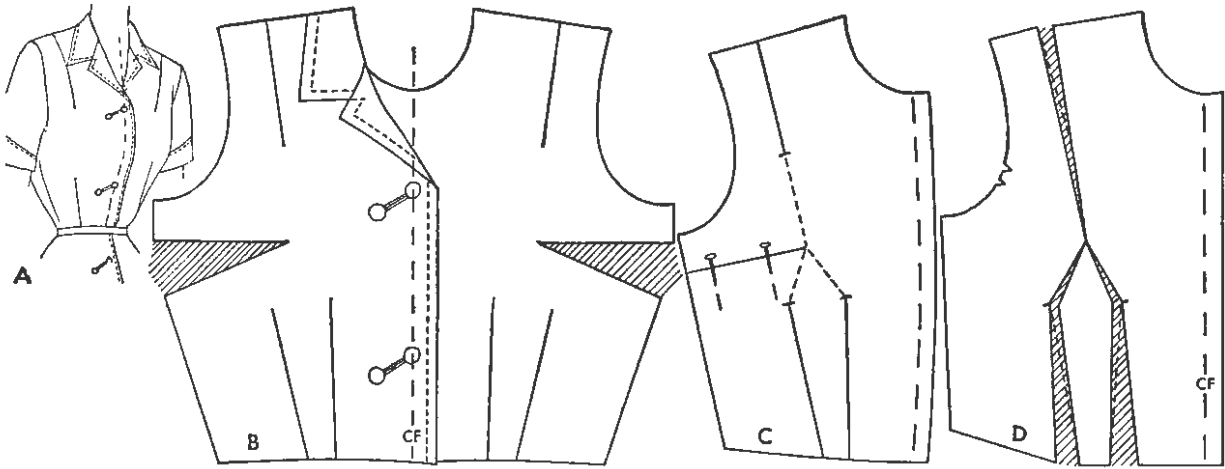


Fig. 39. Converting one basic underarm dart into one shoulder and two waist darts.

9. A dressmaker's dart may be 1"-2" shorter than the basic designer's—the narrower it is the longer it may be to be smooth. Long ones often need decorative arrowheads, pockets, or other devices to cover.

10. Correct stitching and pressing over a rounded pad give a professional finish.

Application to New but Related Problem

1. Study the sketch (Fig. 39, A). Draw a dotted line down CF of sketch. Cut a whole front copy of master pattern so that you can plan proportions of collar, neckline, overlap, and buttonholes, B.

2. Pin in the basic darts to make a bulge in each half. The underarm sloper is used. Why?

3. Draw lines for the three new darts preferably on yourself. On table, correct each with the ruler. If the basic dart is unpinned temporarily you can do a smoother job. Repin basic darts. Try on again to check your final drawing—you might like the waist darts more slanting, or the shoulder dart nearer the collar.

This completed drawing of all details in the design is often called the *elevation*, as in house plans—a complete front view.

Discard the left half leaving the overlap extension on the right half, C.

4. Mark the end point of each dart clearly. Cut along each new dart line continuing on to the point of the bust.

5. On a fresh piece of paper spread the new darts apart any desired amount. Note that the shoulder dart ends rather high above the bust, therefore it should not be very wide.

6. Draw around entire pattern. With a ruler draw in dressmaker's dart to the point marked. See dotted lines in D.

7. Fold in new darts before cutting edges.

8. Overlap, collar, lapel, and facing will be developed in later chapters.

9. Another procedure would be to copy Figure 34, E, then divide the waist dart as in Figure 35, B.

Combining Several Darts into One

To convert a commercial or stylized pattern back to a basic pattern, extend all darts and dart tucks with a ruler to the point of bulge, A (Fig. 40). For gathers or ease, carefully measure each seam length and compare it with the length of the seam adjoining—the difference is a part of the basic dart; watch for this at shoulder and waistline seams. Then, cut away all the darts, B. The gaps left can then be swung together pivoting around the point of bulge to make one large basic dart, C. Also, see Figure 11, B.

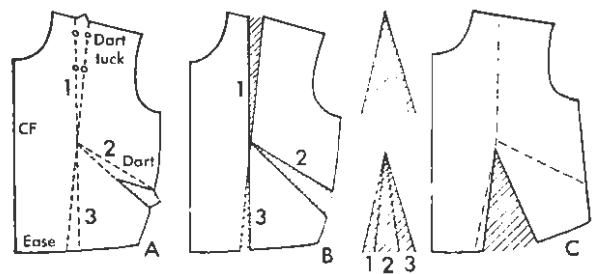
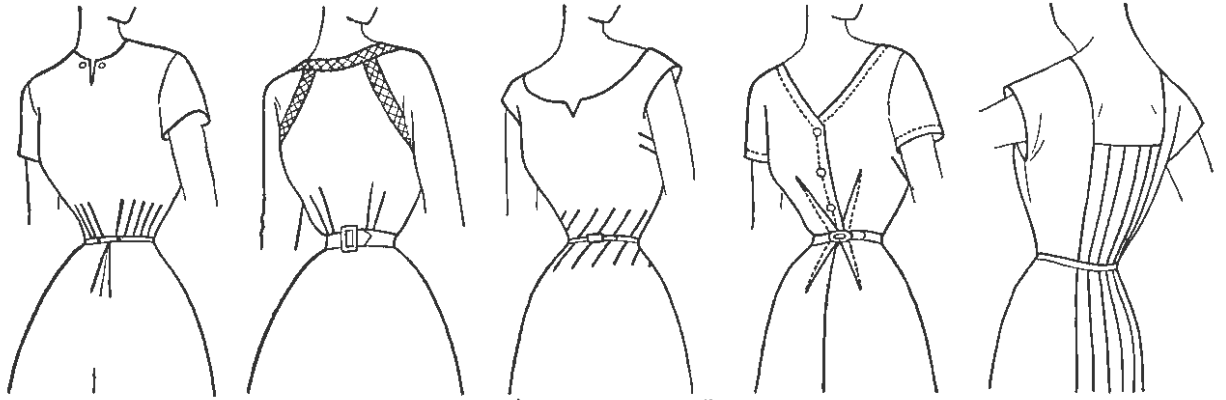
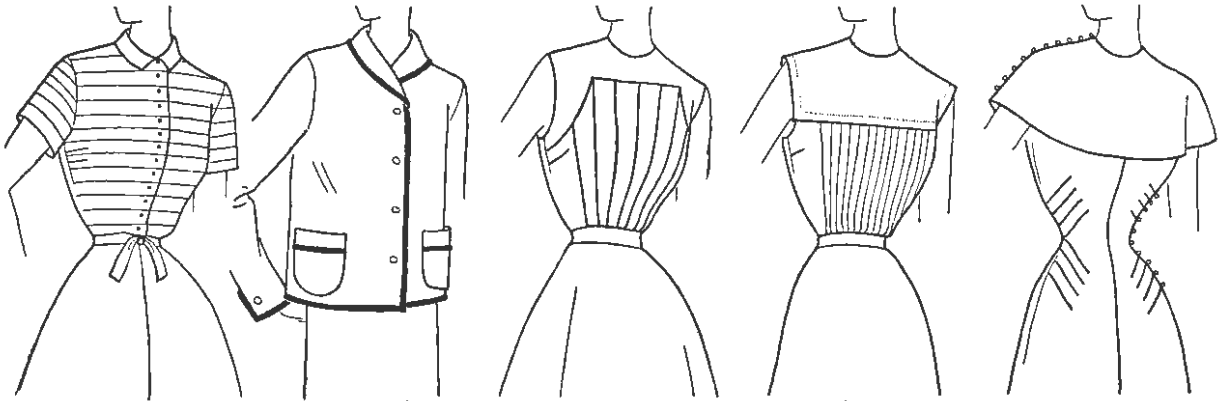


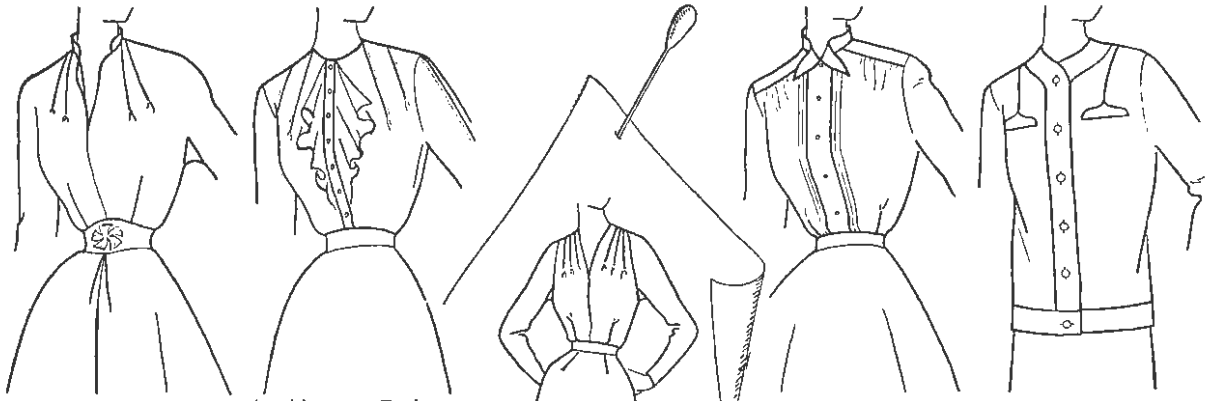
Fig. 40. Reversing the principle—combining several narrow darts into one wider dart.



Tapered Darts Accent Small Waist

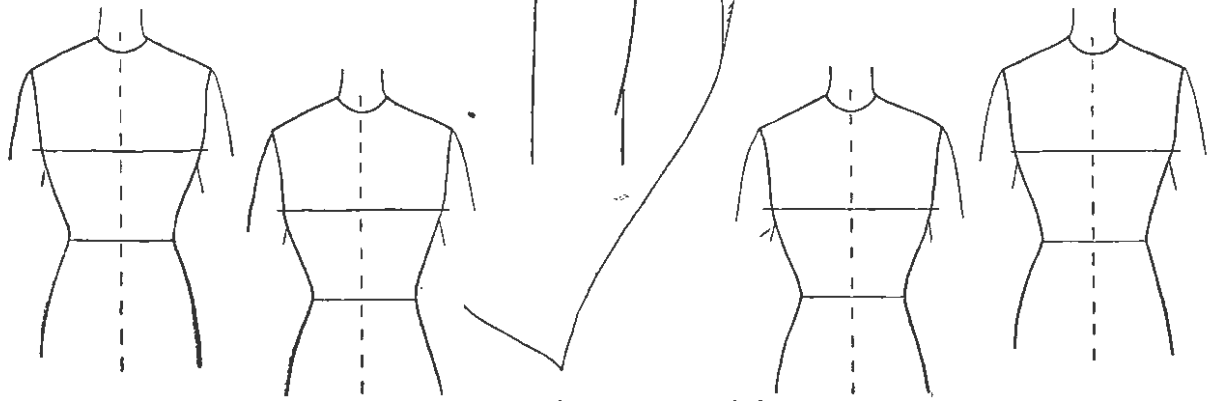


Underarm Darts Keep Crosswise Grain Horizontal



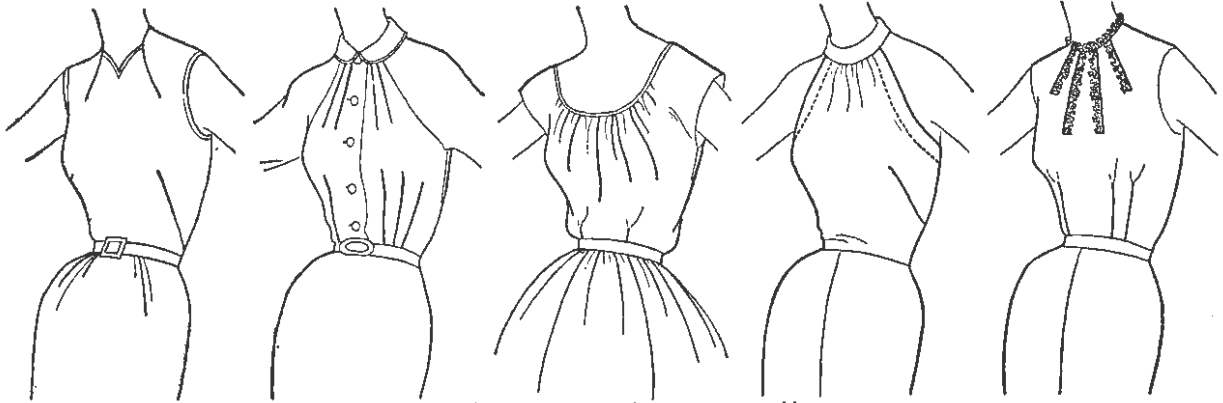
Shoulder Dart-Tucks

for Softness over Chest

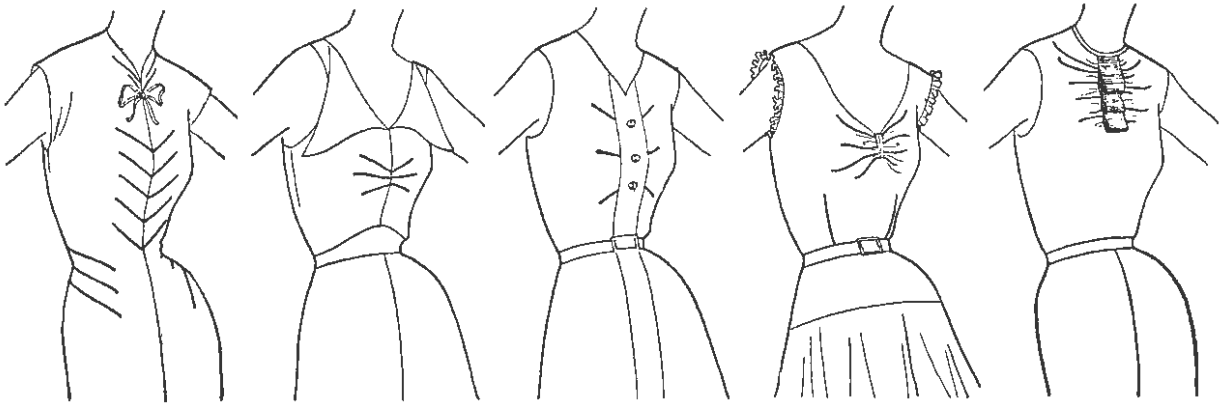


Current Examples—Your Original Ideas

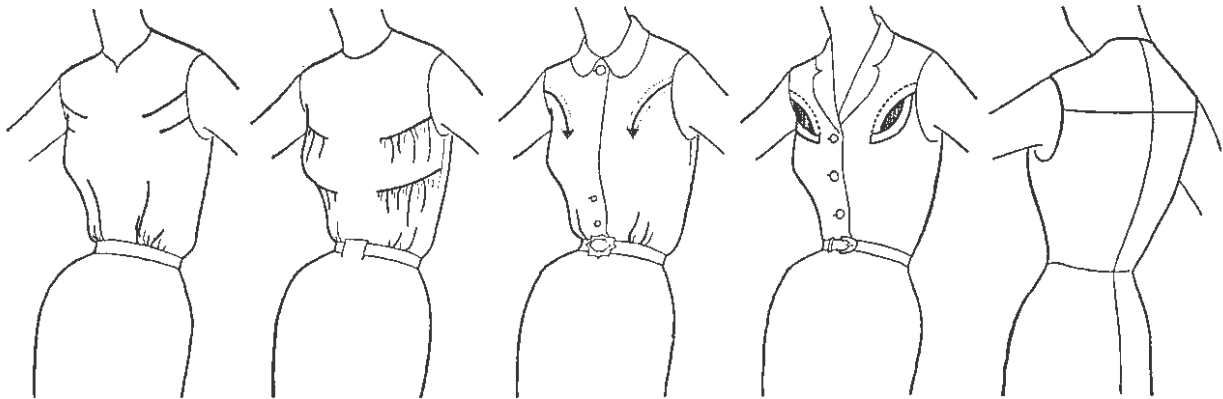
Fig. 41. Blouse styles varied by dart manipulation.



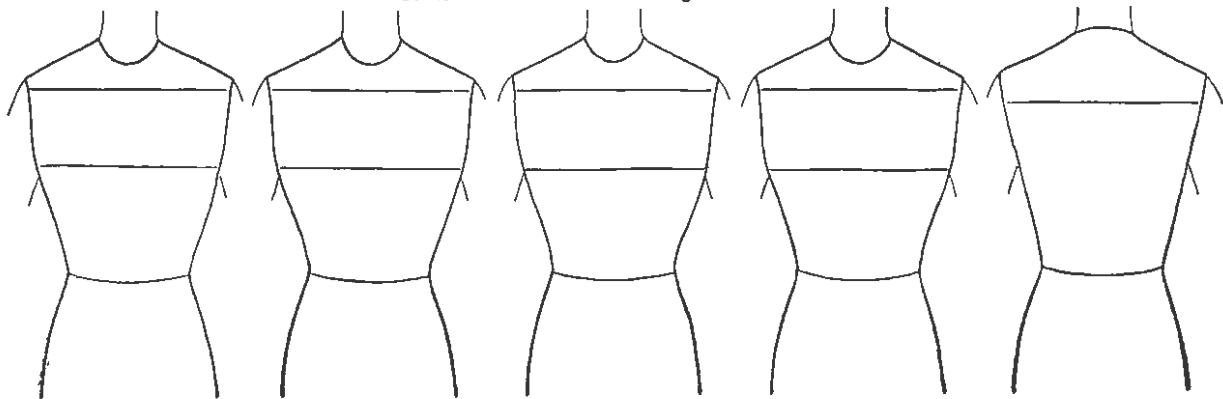
Some of the Basic Dart Swung into Neckline



Some of the Basic Dart Swung to Center Front



Some of the Basic Dart Swung into Armhole



Develop More Interesting Arrangements in These Blanks.

Fig. 42. Different locations of the basic blouse dart.

One needs to analyze the pattern carefully so as not to confuse decorative darts with basic darts. This procedure also is valuable in checking a stylized or commercial pattern with your foundation pattern.

ASSIGNMENT

1. Execute Figure 39 step by step in a small-size pattern.
2. From magazines and pattern leaflets collect sketches of blouses illustrating various arrangements of simple darts.
3. Select one of your collection or one chosen by the class or your teacher. Develop it in a similar manner. Write directions for executing each step. Being able to tell others just how a technique is accomplished will test and improve your skill.
4. Have a group discussion of several such attempts. Evaluation and self-evaluation make for progress.
5. Select one pattern to make from Figure 41.
6. Select one design from Figure 42 and make the pattern. If one seems impossible, study the next chapter.
7. From your own collection add to Figures 41 and 42 in the blanks provided.

Chapter 5

DECORATIVE DARTS AND SEAMS

Basic darts and seams form good structural design through smoothness of direction and formation of well proportioned spaces. They may be changed in size, number, and direction for more decorative effects. Try first to use the basic dart for the purpose, as in Chapter 4. However, there are many instances where the new design lines do not end or cross the point of the (bulge) basic dart. For more decorative features, added space must be secured by another method which consists simply of cutting on the new line and spreading the pattern apart. Follow Figure 43 to understand the technique.

Darts Radiating from the Neck

1. Copy master pattern with basic waist dart. Trim out neckline to desired depth and shape.

Draw in the radiating lines for new darts equally spaced with endings marked to form a pleasing arc, A.

2. Cut accurately on the radiating lines, then slash on to but not through the opposite side of the pattern (dotted lines, B). The pattern cannot flatten out if you cut only part way.

3. Spread so each dart is the same width, such as $\frac{1}{4}$ " , and the length you marked, C.

4. Copy around entire pattern. Draw a line through center of each new dart as fold-line guide for dressmaking. Fold in new darts as planned before cutting neckline.

5. By spreading the dart spaces wider, you can leave enough to form dart tucks with more softness over chest, D.

6. Either at beginning or at end the basic waist

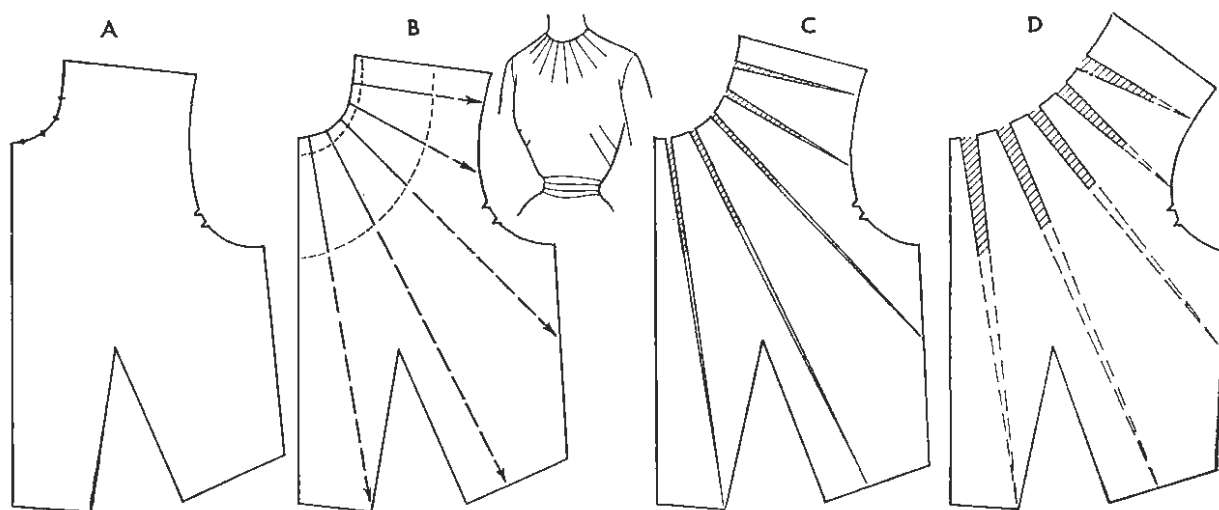


Fig. 43. Radiating darts all added for decoration.

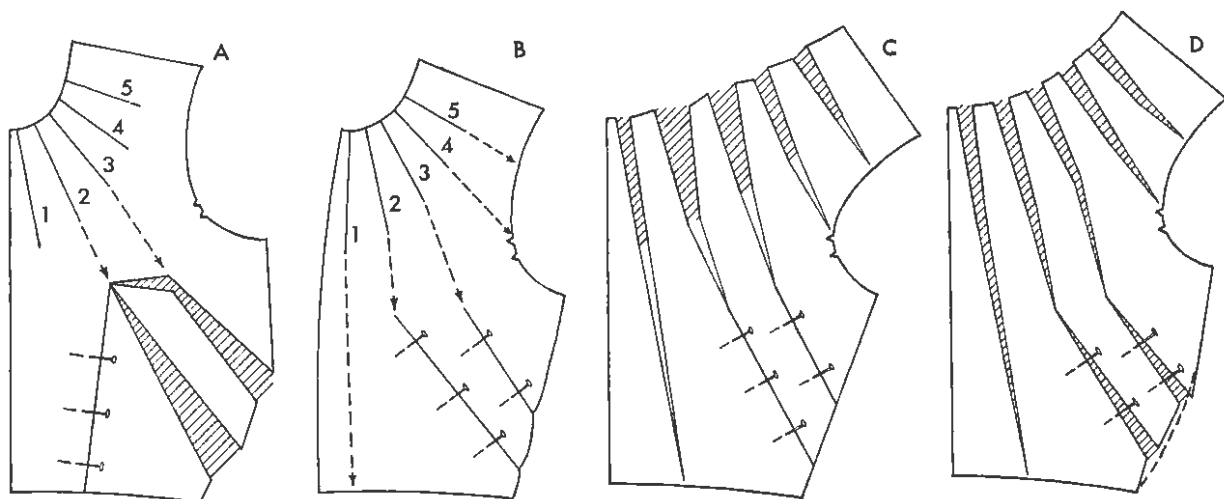


Fig. 44. Radiating darts partly added and partly from the basic dart.

dart may be changed to two diagonal underarm darts or dart tucks.

Part of Basic Dart Combined with Decorative Darts

1. Use same sketch as in A, Figure 43. Draw in neck and dart lines. Extend new radiating dart lines to, but not through, opposite side of pattern.

2. Draw two diagonal underarm basic dart lines to coincide with any one or two of the slashes drawn from ends of new darts, 2 and 3. Since the remaining darts, 1, 4, and 5, do not come at all near the point of the basic dart, they must remain strictly decorative and provide their own width. However, this pattern will be less full over the chest than the pattern developed in Figure 43.

3. In spreading the new darts apart, C, if you find 2 and 3 would appear too wide and thus too thick in the fabric selected, spread them just the way you want, then spread 1, 4, and 5 the same

amounts, D. Unpin the two diagonal darts enough for the pattern to flatten out, leaving them narrower than they were before.

4. Pin in all darts again before cutting neck and underarm seams.

NOTE: A slash entering a seam slightly distorts the seam line which you must true up by a transitional line after folding the dart in. Less distortion occurs if you enter seam at right angles rather than obliquely.

Technique Applied to Line from Armhole

1. A study of Figure 45 shows end of armhole dart across chest. Copy master pattern and draw elevation, A.

2. Fold in basic dart and slash on new dart lines—three decorative darts entering basic armhole dart with one slash from the basic armhole dart ending on point of bulge, B. Obviously the basic dart spreads dart 3 too wide.

3. Unpin the waist dart, C, to make it wider than in B but narrower than it originally was in A, until dart 3 is as wide as desired or so that 1, 2, and 3 will all be alike, narrow enough to be stitched as darts or wide enough for dart tucks.

Dressmaking: after stitching the cluster of three vertical darts, stayline the horizontal dart before closing. In some fabrics this dart is difficult to execute because the seam allowance is narrow. Hence, designers often cover this horizontal dart with a band or other decorative treatment.

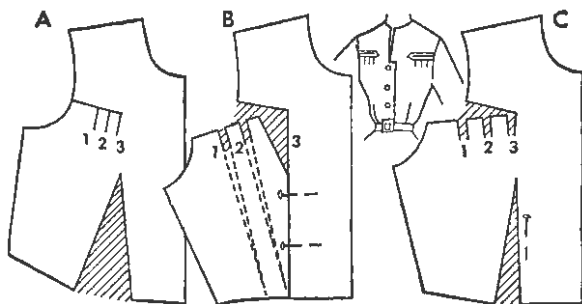


Fig. 45. Decorative dart space used for gathers, dart tucks, or darts.

Extra Fabric from Added Decorative Darts Used as Gathers

Referring to Figure 35, C, we already know that space left by the basic dart may be used as gathers. In the same manner (Fig. 45) space from decorative darts may be used for gathering, shirring, or smocking. The amount of space needed varies with the location, the texture of the fabric, and the build of the wearer. It is best to gather several inches of your fabric to decide on the amount to provide. Be sure you gather in the same direction on the cloth as you propose to use it in the pattern. Gathers across corded ribs do not set nicely. In cutting the pattern make the slashes in the direction of folds to be created, usually at right angles to the line they enter. In B, all the basic dart, less or plus the amount in the decorative darts, may be used—that is, for gathers either B or C could be used depending on the effect wanted. In either B or C more fullness could be provided by spreading each slash more.

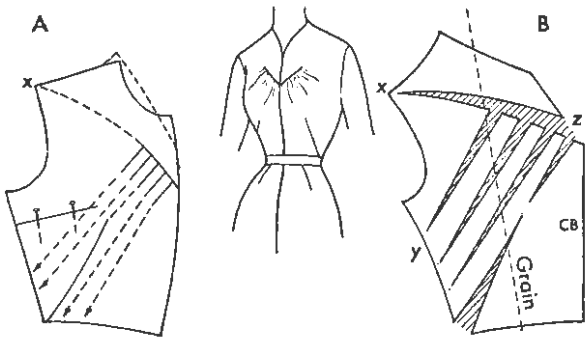


Fig. 46. Darts or gathers entering another dart.

Darts or Gathers Entering Another Dart

Summary of the technique is as follows, applied to Figure 46, but this time used in a dart at center front of blouse.

1. Pin in basic dart to make a bulge and transfer to the stylized location, A. Draw in complete elevation.

2. Cut along the main decorative dart line and continue to, but not through, the opposite side of the pattern. (If you end a slash in a corner, x, rather than in a seam line, it is easier. If it should end on a seam line, y, later make a transitional line to true up the seam line but do not destroy the curved shape thus created.) Spread far enough to leave two seam allowances, z.

3. At right angles to the dart cut along the

entering decorative dart lines, or fold lines of gathers, on over to, but not through, opposite side of the pattern, B. The decorative dart that crosses the basic dart will usually be too wide and may be closed by partially opening the basic dart.

4. Trace around pattern accurately. Fold in darts before cutting seams. If the decorative darts are to be used to form gathers, true up the convex curve. Allow even width seams throughout. In dressmaking, the seam line should first be stay-stitched.

5. The center front above the horizontal dart may be on the grain; or the area below may be on the grain; both cannot be, but both may have a slight bias. A good plan is to fold CF to match underarm seam—the resulting fold to be the grain line, thus keeping the grain at right angles to the waist over the bust.

Back Basic Dart Used for Decoration

The above summary is followed in developing Figure 47.

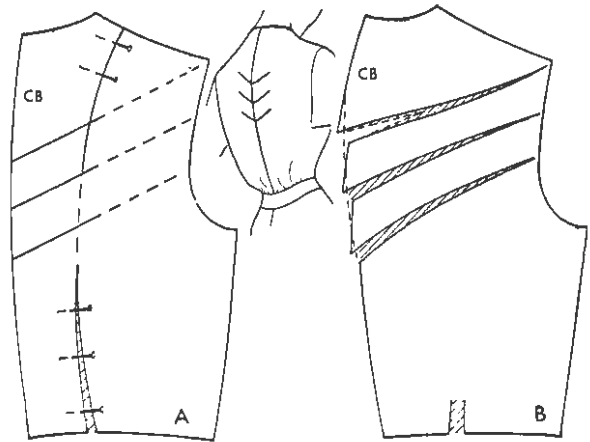


Fig. 47. Back shoulder dart used for decoration.

1. Fold in shoulder dart of back sloper. Fold in waist dart partially to leave about $\frac{1}{2}$ " for waist-line ease or gathers. The two darts may be connected into one slanting line, A.

Sketch location of three decorative darts that enter CB seam.

2. Cut on new lines until they meet the folded-in old dart line and spread until pattern flattens. If the amount of spread is not sufficient to stitch a dart you like or if you want to use dart tucks, continue slashing on over to the opposite side of pattern and spread as desired, B.

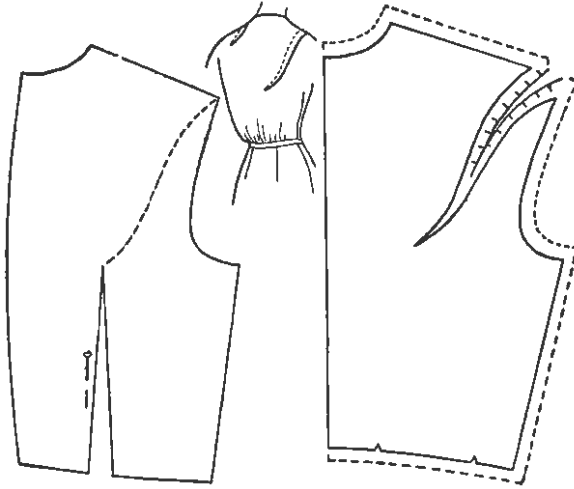


Fig. 48. Curved darts.

Curved Darts

There is no more clever device for subtle designing than the creation of curved darts. The curves should be smooth, direct, and fairly simple, neither double, reversed, nor too rounded. The curved dart should borrow from the basic dart if you place it so that it meets the point of or intersects the folded-in basic dart. Otherwise you will have to make it a decorative dart. Suggestions for developing Figure 48 are:

1. Sketch in the new curved dart line, A. Fold in the two basic darts until they meet as one vertical dart; or leave the shoulder dart for easing and work entirely with the waist dart; or only partially fold in the waistline dart so that some gathers may be left, as in sketch.
2. Cut on the new dart line beginning at the shoulder and ending on the point of original waist dart. The left half would be made similarly, drawing on the folded-in shoulder dart. If CB is to be kept straight (without a seam), work with a whole back.

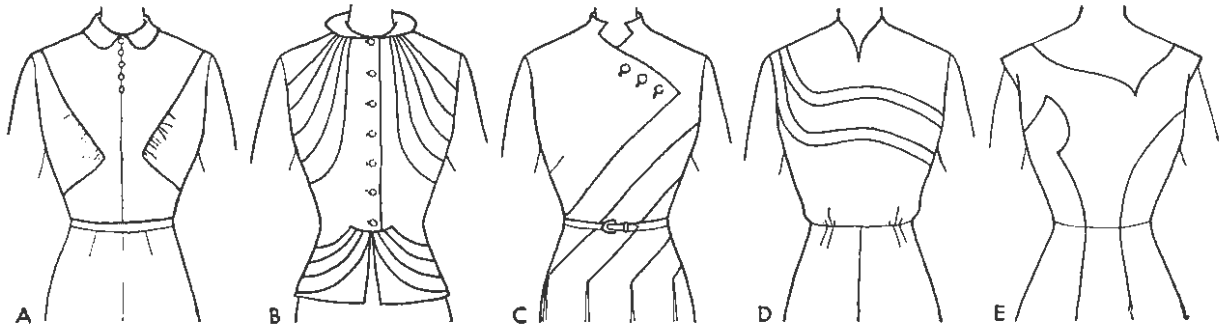


Fig. 49. Shaped seams for decoration.

The secret in sewing a curved dart is careful tracing and stay-stitching of the new dart line; then cutting midway through the space; then clipping the curved seams so that the concave curves will perfectly fit the convex curves, B. This dart cannot be made by folding through the center as in standard darts; hence, it is important to spread it far enough to give adequate seam allowances. Also, from a practical standpoint the narrow end of the dart should not have too much curve in it.

A skilled dressmaker will see many ways of accenting such a dart: (1) making a slot seam of it with underlay of contrasting color or texture; (2) facing it on one side only; (3) top stitching as a dart tuck wider at top than at end; (4) an arrowhead at end of dart; (5) a shaped band or pocket inserted. It is easier done in firm, nonfraying fabrics, with little texture or distracting prints. Rectangular shaped darts would be developed similarly.

New Seams for Decoration

The larger areas of blouse, skirt, and sleeve may be divided into sections to give design interest (Fig. 49). The lines also create eye movement so that horizontal lines generally make a person appear wider and vertical lines give an effect of more height. Diagonal lines are more dynamic and give a feeling of activity and zest and prevent the eye from lingering on areas too wide. Pleasing proportions require subtle, unequal space divisions. Gradation in spaces makes for rhythm. Curved lines are always graceful but require special accuracy in dressmaking, usually stay-stitching and then slashing to make concave curves fit convex curves. Careful marking of grain lines, centers, and notches is necessary.

The French-dart line and yokes will be treated in later chapters.

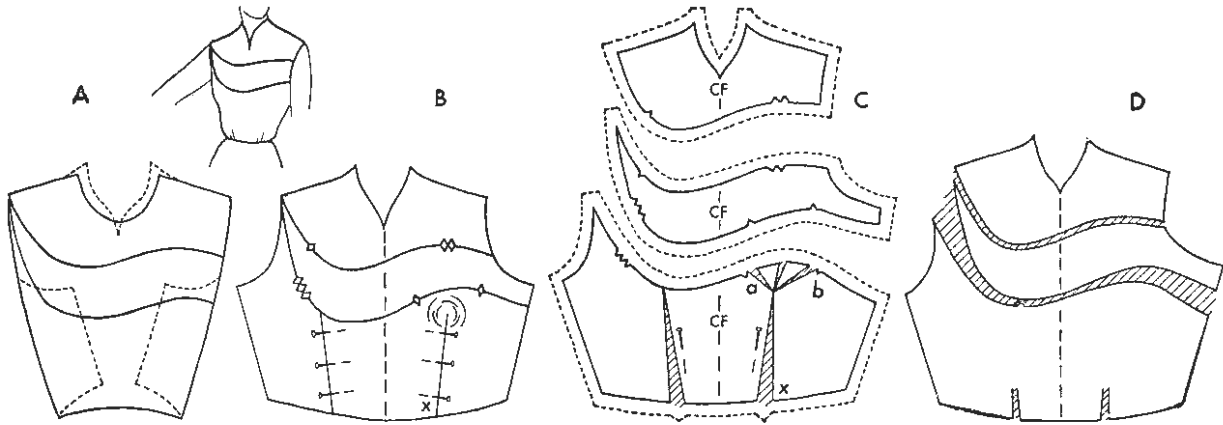


Fig. 50. Asymmetric seam lines.

Wherever you can make a design line cross the point of a basic dart, cutting a pattern is very simple. In Figure 49, A, the panel effect is slenderizing, easy to cut, and easy to make. While B has more design lines it is simple to cut but requires more care in dressmaking and more fabric for the many seams. Both of these are similar to yoke problems, Chapter 7, and both are symmetrical in design.

In cutting fairly straight lines like those in C, you will find that the lines will not begin and end as you plan them if you try to use a straight ruler; you will have to cut a direct but slight curve, either free-hand or with a curved tailor's stick. Such apparently straight lines should be slightly curved to make them conform to the natural curves of the human form.

Asymmetric Design Lines

While C, D, and E are easy patterns to cut they are asymmetrical. In creating such designs make vertical and diagonal lines of the blouse seem to flow into the same kind of lines in the skirt, but keep the skirt simpler to balance the intricacy of cut in the blouse. While repetition makes for harmony, too much makes for confusion and detracts from the original center of interest. To understand how to develop an asymmetric design follow Figure 50.

1. Mark CF line in sketch D of Figure 49. Cut a whole, not half, copy of front sloper, with extra space for high neck as in Figure 50, A. Pin in darts for bulge over bust. On model sketch in new design lines for complete elevation dividing into three horizontal spaces in pleasing, unequal proportions. Folding the pattern as in A gives a three-

dimensional effect that helps to visualize results off the figure.

Unpin darts temporarily in order to work flat on table as you refine the lines and shapes. Decide whether the narrow strips are insets, requiring five spaces, or trimming bands like binding, piping, or facing.

2. Repin darts and try on. Rework as needed and add to neckline.

3. Mark notches on each new seam line before cutting apart to aid in later assembling, B. Be sure that CF is clearly marked. Cut apart on the seam lines.

4. Note how satisfactorily the basic dart in the pattern's right half ends in the seam line and that the area where it was is smooth and flat. But on the left half there is still a bulge. Two solutions offer themselves. One is to extend the left dart up an inch or two until it disappears on the seam, but this plan prevents a smooth fit on the torso if the original master pattern fitted correctly. The better method is to leave part of the dart unpinned at the waistline, x, and then slash from the seam line between a and b to the point of the bulge to flatten it. The amount of spread between a and b is so slight that it can readily be eased in during dressmaking. If notches were marked before cutting apart, the pieces will match perfectly when assembled in dressmaking.

5. Be extra careful to add standard seam allowances throughout. The CF line is, of course, the grain line.

NOTE: Part of the basic waist darts were left as ease or slight gathers or dart tucks at the waistline. But the major part of the basic darts now lies in the seam between the lower and middle

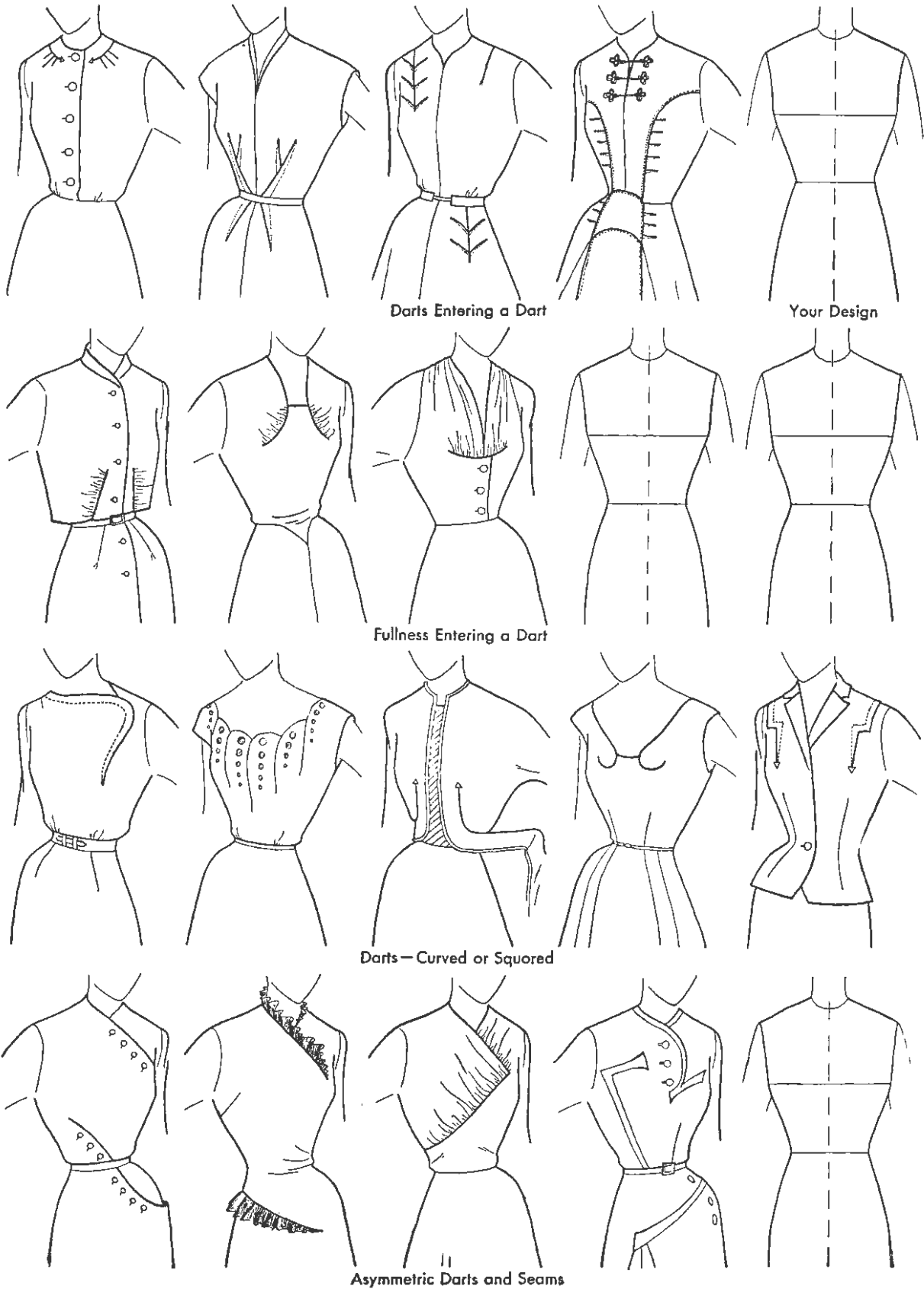


Fig. 51. Vary the number, direction, shape, and combination of darts for originality.

sections. Hence, the seam conceals the dart or we might say that the seam is really an extended dart.

SUMMARY

1. If the basic dart does not provide sufficient room for decorative darts, cut a slash on the design line and spread apart.

2. The pattern will not spread flat unless the slash goes to the opposite side. It goes to but not through the opposite seam line.

3. Since the decorative dart is not stitched as far as the pattern was slashed, considerable ease is left in the pattern. To keep this ease to a minimum make the spread as narrow as possible for stitching.

4. Slashes work better if the open end is at right angles to the seam.

5. Slashes cause less disturbance if they can be made to end in a corner, but if they end at different intervals in a seam the resulting irregular seam must be made into a transitional curve as near like the cut pattern as possible, not ruled with a yardstick.

6. Shaped darts and seams may be drawn anywhere the designer wants them. Art principles and ease of construction should influence the location.

7. If the new lines can cross the point of the bulge, the pattern making is simplified.

8. If a new design line falls fairly near the point of a basic dart, the pattern can be slashed from the seam to the point of the bulge in several places to make it flatten out; then the slight extra space resulting must be eased into the seam it joins and the pattern so marked to inform the dressmaker just where and how much to ease.

9. Design lines which use the basic dart by crossing its point leave the basic dart between the two joining parts. Such a garment is often referred to as one without darts but this is misinformation—the dart is concealed in the seam. In other words, we may think of a seam as merely an extended dart.

10. Asymmetric designs use the same techniques as for any other pattern except that a whole front (or back) must be cut and used rather than just half.

11. Spreading slashes must be done accurately for darts but they may be unevenly, free-hand cut and spread for ease and gathers.

ASSIGNMENT

1. Find current designs to correspond to the sections in Figure 51.

2. Make four patterns—to illustrate each of the four groups.

3. Make a front for the half-size model of the one your instructor thinks is best.

Chapter 6

FULLNESS TO CREATE STYLE

Since the basic pattern fits rather closely, more ease or fullness is required when it is made up to be worn as a garment. Previous chapters have shown how to manipulate the basic dart in developing gathers and dart tucks or in introducing added space for gathers and decorative darts.

Other types of fullness include tucks, pleats, folds, circularity, and drapery. All of these are created by slashing the pattern and spreading. The slash must follow the line of the desired fold and the spread must be several times wider than the sketch or finished article indicates at first glance. This chapter shows some of the common uses of this principle and techniques to aid in good results.

Location of Gathers

A moderate amount of gathers results from the release of a basic dart (Fig. 35, G). More gathers

result if several slashes, as for decorative darts, are cut from the gathered side to but not through the opposite side of the pattern and spread more than the dart (Fig. 43). If one of the slashes crosses the point of the basic dart, the fullness gains width from both the decorative slash and the basic dart (Fig. 46, B). Close examination of a sketch or a mental picture of the blouse for your fabric helps you decide how to get the gathers in the pattern.

Figure 52 compares ways of creating gathers in a pattern. In A, moderate fullness is given the shoulder seam by using all the basic dart. In B, all the basic dart is placed underarm and extra fullness provided by decorative dart slashes—fuller through the bust and soft down to the waistline. In C, the basic dart is absorbed with the decorative dart slashes with much more fullness at the shoulder because the slashes are spread more—in fact so much fullness that rows of shirring are

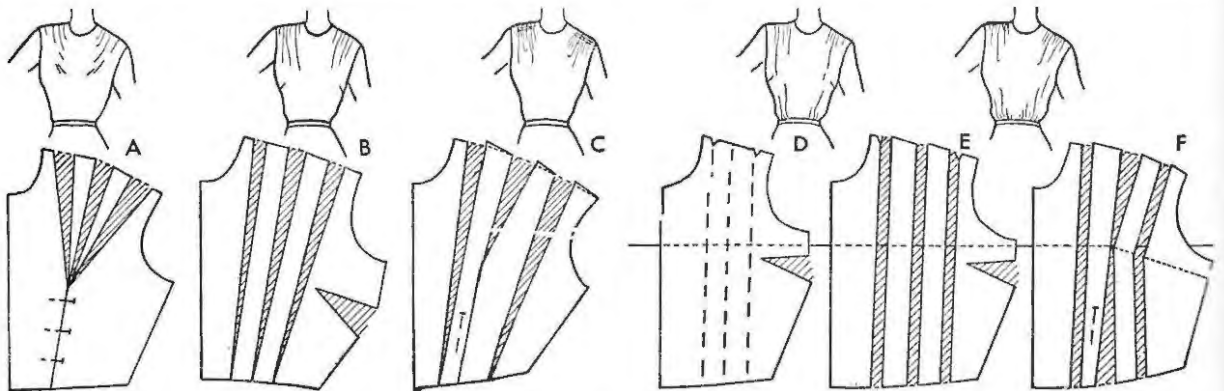


Fig. 52. Ways of creating gathers.

required to hold the fullness in place or the armhole would slip too far off on the arm. In each case the shoulder seam is slightly rounded—it should be kept that way and not cut off by ruling a straight line there (a bulge requires length as well as width).

The preparation of a pattern where gathers are desired at both top and bottom is shown in D. Gathers should not come nearer than 1" from the armhole and neck, marked with notches. A few vertical slashes are made lengthwise through the pattern where folds are desired. Since these slashes cut *through* both the upper and the lower edges of the pattern, a horizontal grain line is drawn in before cutting. This line is then pinned on a horizontal line on a fresh piece of paper to keep the parts in balance.

E shows the separation with basic dart in the underarm seam, so that all folds are on the lengthwise grain. In F, the basic dart is divided between shoulder and waist, so that the horizontal grain drops down as it nears the armhole.

The gathered folds lie in the direction of the slashes. Hence, if horizontal folds are desired, cut the pattern crosswise just where desired and spread as much as fabric calls for; if folds are to hang straight, cut straight; if slanting or curved, cut that way.

Tucks

Narrow tucks, $\frac{1}{8}$ " to pin size, add texture interest to otherwise flat material such as organdy, lawn, voile, chambray, broadcloth, handkerchief linen, flat crêpe, and taffeta. They are best made in a piece of the fabric using a tucker attachment on the sewing machine, each fold true in width and grain. After pressing, the tucked cloth may be cut by a plain pattern piece such as collar, pocket, yoke, or other inset. Similarly tucks may be made in fabric for a blouse front, a block pattern placed on top for cutting (Fig. 53).

In home or custom workshops, the above method is necessary when one desires each tuck (or pleat) to take up a certain stripe or other figure of the fabric, no matter how wide the tuck.

Wide tucks, $\frac{1}{4}$ " and over, are easily provided in a pattern. Careful spacing on a copy of the basic pattern is necessary to keep the proportions interesting and unified. Do not have a tuck nearer than 1" from the armhole—the space left there is not too pleasing—since at the lower end it comes

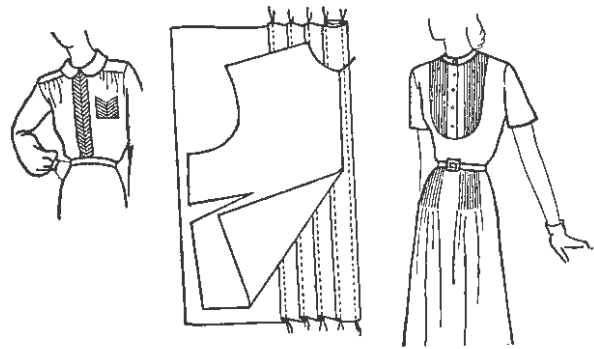


Fig. 53. Pattern piece placed on tucked fabric.

too near the armhole. Do not have the tucks and spaces all the same width. Avoid such obvious measurements as $\frac{1}{8}$ ", $\frac{1}{4}$ ", $\frac{1}{2}$ ". But in designing with variety have more elements of likeness than you have elements of unlikeness to maintain harmony. It is better to work at first with a whole front, later with just a half. Begin with an underarm basic dart to keep it out of the way of your designing area. The method is identical with slashing and spreading for gathers (Fig. 54).

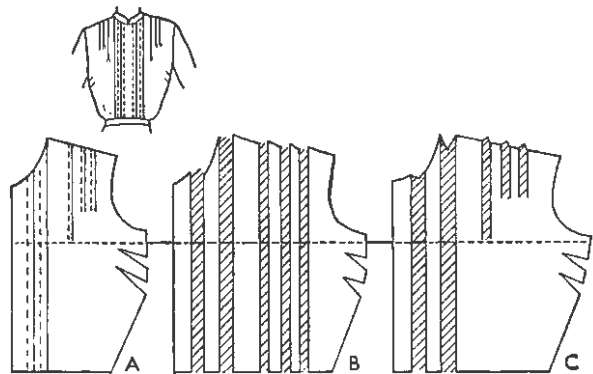


Fig. 54. Tucks cut in the pattern.

1. Draw two lines for each tuck—a solid line to represent the folded edge and a dotted line to represent the machine stitching. Use a ruler and gauge to make all measurements exact, A.

2. Draw a horizontal line at right angles to center front either above or below the basic dart. This line keeps the parts in perfect alignment after slashing.

3. On a fresh piece of paper draw another horizontal line at right angles to the vertical edge of the paper, CF. Place the pattern with lines ruled for tucks over it before cutting apart to save confusion.

4. Cut apart on each fold line drawn for a

tuck, B. Spread each slash twice as wide as the amount planned for the tuck as shown by your stitching lines— $\frac{1}{2}$ " for a $\frac{1}{4}$ " tuck, $\frac{3}{4}$ " for a $\frac{3}{8}$ " tuck, and so forth. Keep the horizontal lines matched or the armhole will be too high or too low for the neck.

5. With a ruler draw along edges of spaces. Fold as planned before cutting shoulder or waist seams, C. Replace basic pattern to test seams.

6. The basic dart now needs consideration. In sheers it is well to keep most of it underarm perhaps divided into two or three narrow darts. Part of it may be swung down to the waistline for gathers or dart tucks. In nontransparent fabric the basic dart if it is fairly wide may be divided so that part of it lies under the outermost tuck at the shoulder and part down at the waistline. Naturally such a dart would be turned forward in making and pressing.

7. The last tucks entering on the shoulder seam may not set smoothly over the bust. A fairly full bust needs softness there anyhow. Hence, the last tucks may not be stitched all the way down.

NOTE: The idea used in making narrow tucks in cloth may be used in paper. Rule every line and fold carefully. Then place sloper over the folded tucks to cut out. This procedure of course is necessary if a paper pattern is made for the use of other people.

Perforations will be necessary on the fold line for each tuck, especially narrow ones, with directions as to how far from the edge the stitching must be. A tucker attachment or other gauge is necessary.

Pleats

Pleats are developed in a pattern exactly like tucks but in the finished garment they are unstitched or stitched only part way down. If folds are stitched either right side out or wrong side out through two layers the same distance from the fold, they are tucks or dart tucks, but if after folding down on the right side they are top stitched through three layers, they are pleats. The pleats may be the same width throughout their entire length or graduated to be wider at one end than the other, as in skirts.

Narrow pleats are difficult to press straight and are best developed in fabric that is to be dry cleaned, not laundered. Pleats set better if the fold line follows the heavier threads of the fabric which are usually warp threads. Thus, ribbed fabrics are better tucked or pleated with the ribs, usually crosswise.

Pleated blouse fronts and skirts usually set better if the top fold of one pleat meets the underfold of the next. Hence, each pleat requires three times its own width. If this takes too much fabric or is too bulky, the pleats can be spaced to suit your needs.

The effect of narrow pleats can be obtained by tucking the fabric so that the fold barely overlaps the stitching. The stitching will show on the first or last pleat, but it could be omitted leaving a true pleat or be stitched on the wrong side. On washable fabric like voile this is a practical solution.

A box pleat is a pair of side pleats folded away from each other. When folded to meet each

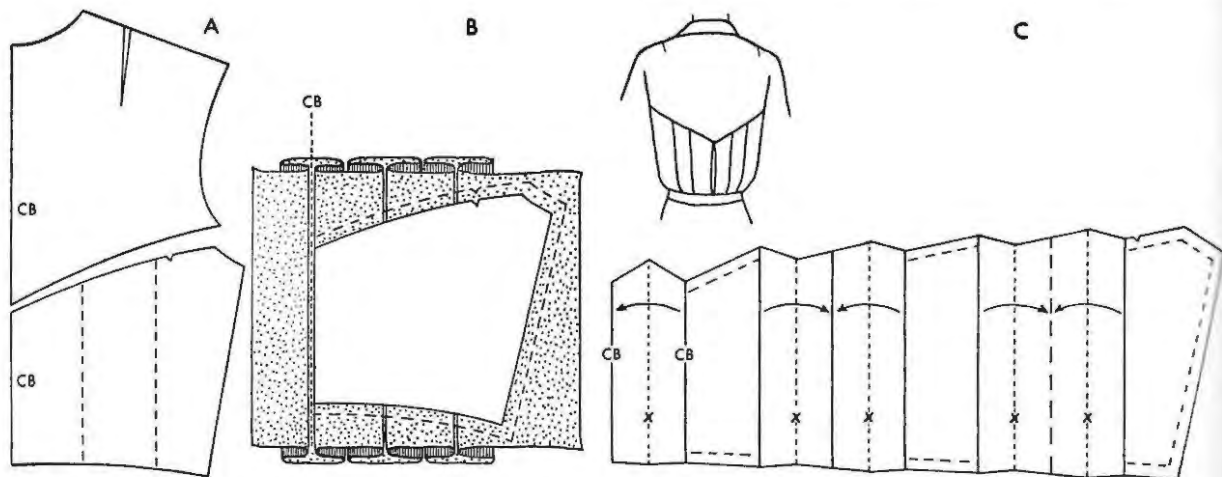


Fig. 55. Box pleats first folded in paper, then covered with basic pattern piece. Trace around pattern and add seam allowance before unfolding, C.

other they are inverted box pleats. Figure 55 shows paper box pleated before placing blouse section over it, B. Trace around edge of pattern piece then trace a seam allowance before cutting out; doing so now saves errors and time later. Opened up, the pattern should be clearly labeled to show lines to be folded and lines the folds should meet, C. It is not desirable to mark the back or under creases. However, if cloth is not wide enough, each undercrease, marked x, is a potential seam line. If cut apart for this purpose, a seam allowance must be added to each side of the cut. Seams do not look good at the center of the underlay or on the edges of top folds. The underlay may be made of contrasting fabric.

This technique is also used for pleats in sleeves and skirts. It is quite simple, but accurate measurements, drawing, folding, and labeling are essential.

Flare

Circular fullness or flare may be obtained, as in decorative darts, by cutting the pattern where flare is desired, slashing on over to but not through the opposite side and spreading. A collar, a gore, a cape, a peplum, and a cuff band are examples (Fig. 56).

The slash must be just where you want the flare, and in general it should enter the opposite seam at right angles to it, not obliquely.

Another principle to keep in mind is that the straight of the goods hangs straight on the figure and bias tends to ripple. However, if the garment is close fitting, the bias tends to stretch around and thus it shortens, reducing the flare. In thinking of the bias, remember that yarns which are soft or slippery tend to slip together on the bias and hence the 4" of flare you provided may collapse to 2". Therefore, you will need to provide more spread for such fabrics and especially more on the bias lines. There is no substitute for trying out your pattern in such cases in the intended fabric—muslin does not act the same as crêpe. Such trials are really draping or modeling on a form. In Figure 56, D, the first peplum seemed skimpy. So we slashed it again, E, then spread it until both vertical seams were on the lengthwise grain.

In dressmaking with bias-cut seams, it is not a good idea to stay-stitch lengthwise seams. It is better to stitch with the grain (usually up) with an easy tension. After basting, or after stitching and pressing, such parts should be hung up for a time to allow adequate stretching of the bias sections before the lower edge is evened off.

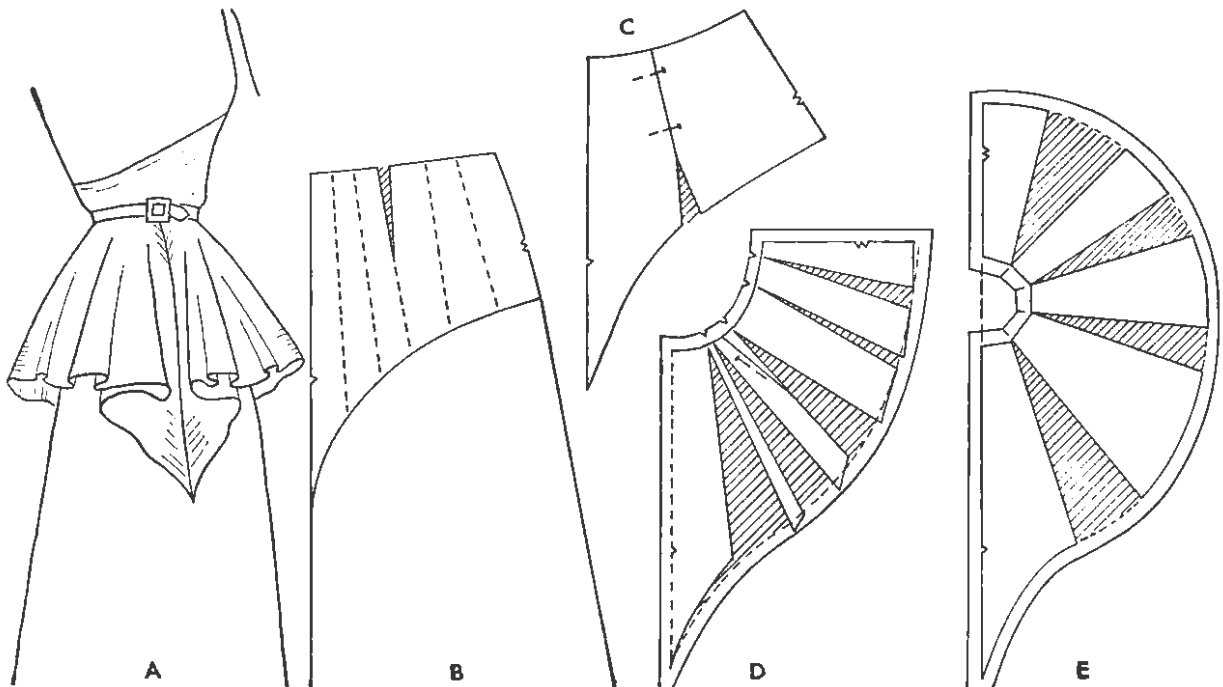


Fig. 56. Flare in a peplum.

Notice in Figure 56 that the seam to which the slash was directed is now more curved, D. This curve is the secret of the style and should not be changed to a more transitional line. Many slashes of course result in a smooth curve, but when one large flare, drape, or fold is desired, an angle will result in the seam to which it is directed and this must carefully be preserved, D and E, so that the flare will always fall at this point. In dress-making, first stay-stitch the seam that supports the flare, then make a short slash to this definite point.

A practical application of this fact is help in fitting a ready-made skirt with the flare in the wrong place. Remove it by letting out the seam in the belt line just above the unwanted ripple, and throw the ripple over where it is wanted by taking the belt line seam deeper and clipping it there. Slight changes in the waistline curve can make or lose style.

Flare in a skirt also may be secured by releasing the vertical waistline dart front or back (Fig. 31, C, and Fig. 56, C). In boxy jackets and boleros we frequently retain part of the basic dart in the shoulder or underarm and let the rest hang free, A (Fig. 57). In B, we begin with the basic waist dart folded in and make a few slashes from the bottom to but not through the top. If the first slash crosses the end of waistline dart, that is the same as if we had left it unpinned. The sketch shows some flare near the armhole and some near the center back where the ripples were planned. If one goes through the end of the shoulder dart, well and good; others may enter the neck; and the more the slashes are spread the more flare we get, C.

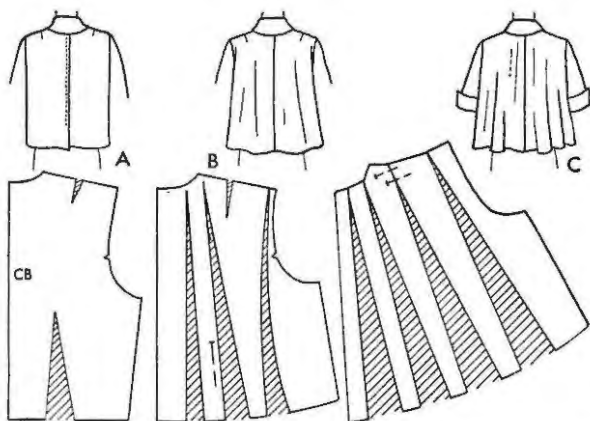


Fig. 57. Flare in box jacket: A, retaining shoulder dart, less flare; B, adding flare; C, more flare by pinning out shoulder dart.

Conversely, in the back or front of the skirt, a two-gored pattern tends to cup under the seat or draw across the thighs on nonslender figures. Slash the pattern from hem to basic dart and spread slightly, thereby reducing the width of the basic dart (Fig. 31, C).

Any part of a commercial pattern can be given more flare by this method. Conversely, any part of a commercial pattern can have some of its flare removed by folding narrow darts from the wide part to the opposite side of the pattern or into a basic dart if one is there. In the latter case, the basic dart is widened in order to flatten out the pattern after a slight bulge occurs from the folding.

Draped Folds

Unpressed, unstitched pleats or tucks create folds soft in appearance and easy to make. Decorative folds or drapery may be arranged in horizontal, diagonal, or curved lines as well as vertically. They have traditionally been developed by draping or modeling fabric on a dress form, but they may be created successfully by the flat pattern method if not too complex and by some experimentation. As explained in the discussion of flare, the fabric itself is all important. Trying out the folds on different grains and bias of each fabric is necessary so that semidraping really occurs—either on a form or yourself before cutting a pattern. The principle is the same as for any other fullness—cut pattern on the line of the folds (which you have in your mind or in a sketch), then spread as much as the fabric on that grain or angle required in actual trial of the cloth (Fig. 58). If possible have the basic dart or part of it in a position parallel with the fold lines to be cut. In bulky fabric make the underfold a little narrower than the top fold, but if the draped folds are in soft, flat, or sheer fabric the underfold may have to underlap an adjoining fold to be wide enough to drape nicely.

Draped Cowl Effect

From the monk's hood of the Middle Ages, but placed in front, we inherit the cowl neckline—a restrained soft fold at the front of the neckline or a complexity of drape to play up lights and shadows. Crêpe, satin, chiffon, and jersey are ideal for the purpose. With a center front seam cut on the bias the drape is better. A slim skirt balances

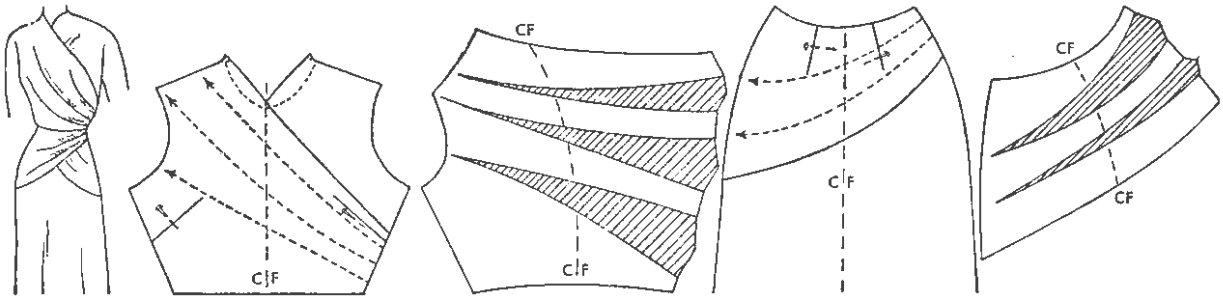


Fig. 58. Draped folds by slashing and spreading.

well with the bloused look, but in sheers vertical drape lines in the skirt carry out a fluid classical, Greek effect.

Figure 59 shows several ways to cut a cowl pattern. A and B throw the basic dart to a high neckline and C uses slashes—both techniques already demonstrated. In each case, additional width and length is provided. In each case the neckline can be cut higher or lower.

Figure 60 shows a deep cowl.

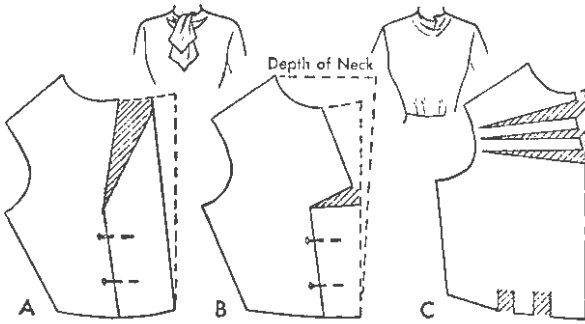


Fig. 59. Cowl neckline.

Dressmaking: after stay-stitching shoulder and before sewing front to back shoulder seam, clip at inside corners—the ends of slashes creating the folds. To keep the drapery in place a partial sheer lining of the original bodice shape may be used to which some of the inside folds may be tacked. Ordinarily, however, a tape about 6" long with a covered, dressmaker's weight attached can be tacked inside the neckline to hold it in place. An ornament may be used to pull the entire drape to one side or to both sides.

The principle in creating a cowl is simply one of drape or flare. The cowl effect is found on backs, sleeves, and skirts, in collars and yokes (Fig. 62).

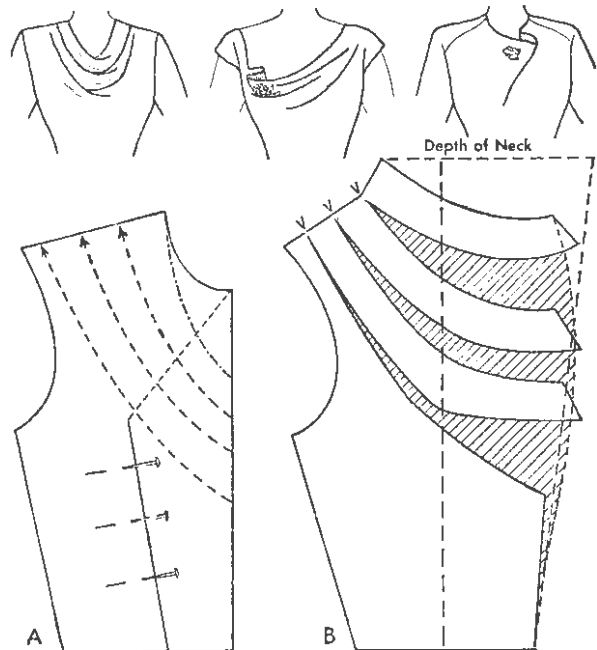


Fig. 60. A deeper cowl.

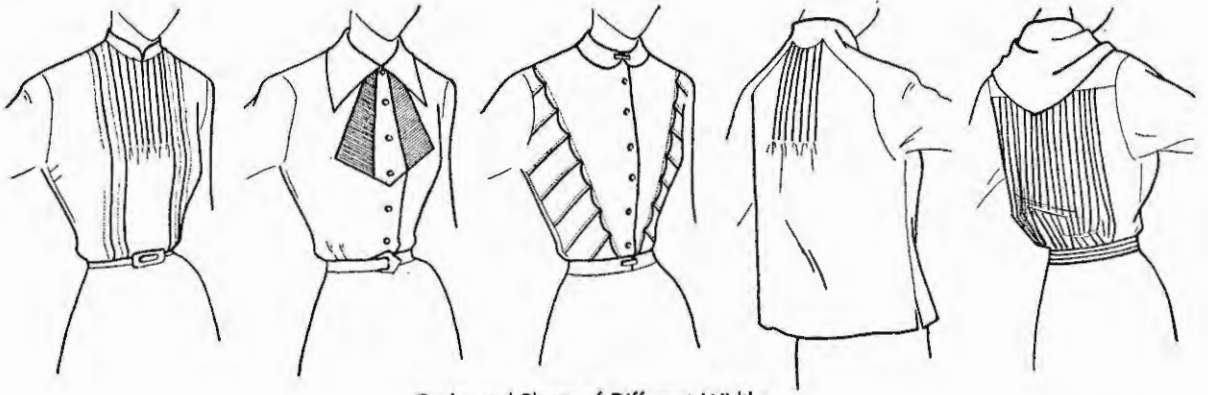
1. Begin with elevation to show shape of finished neckline and curved lines indicating folds.

2. Close waist dart or leave slightly open for ease; open remainder of basic dart into neck.

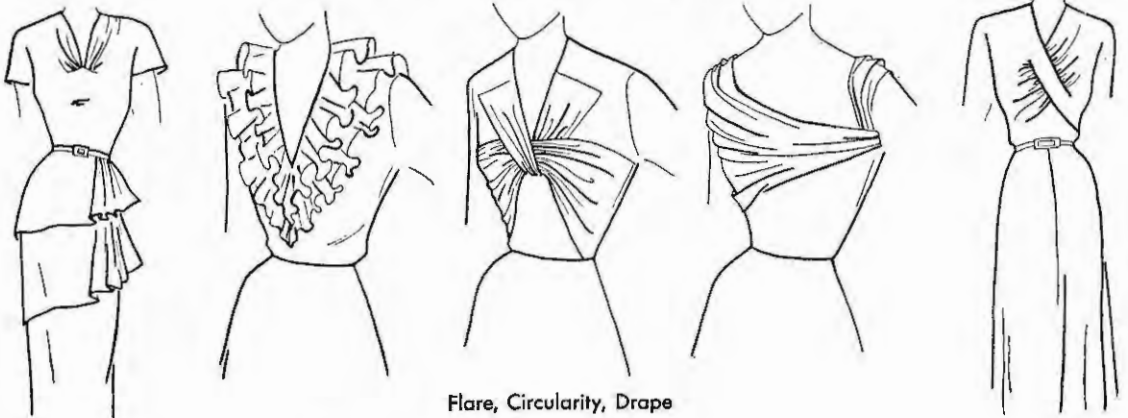
3. Slash on lines for folds, B, and spread each twice (or over) the depth of fold in mind, preserving angles at shoulder as explained on page 52.

4. Make a CF transitional line (dotted) or wider for first trial. The neckline may be raised—if straight, the edge may be hemmed.

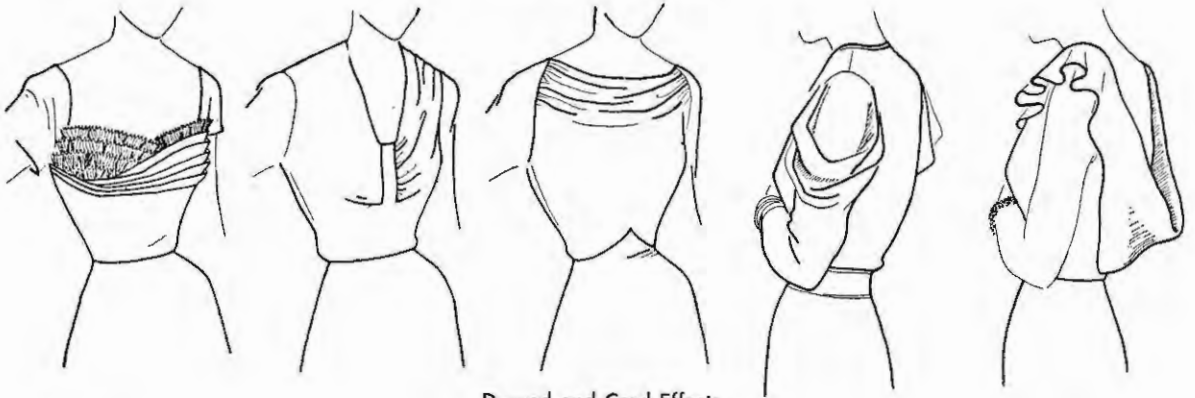
5. For grain use the line made by folding CF to meet underarm seam. Grain line may be placed on true bias.



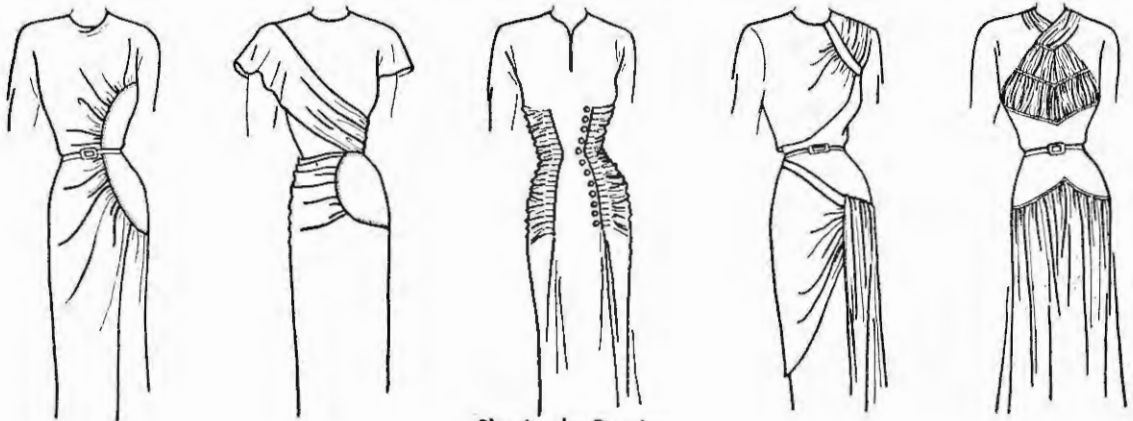
Tucks and Pleats of Different Widths



Flare, Circularity, Drape



Draped and Cowl Effects



Shaping by Draping

Fig. 61. Style details created by tucks, pleats, folds, flare, circularity, and drape.

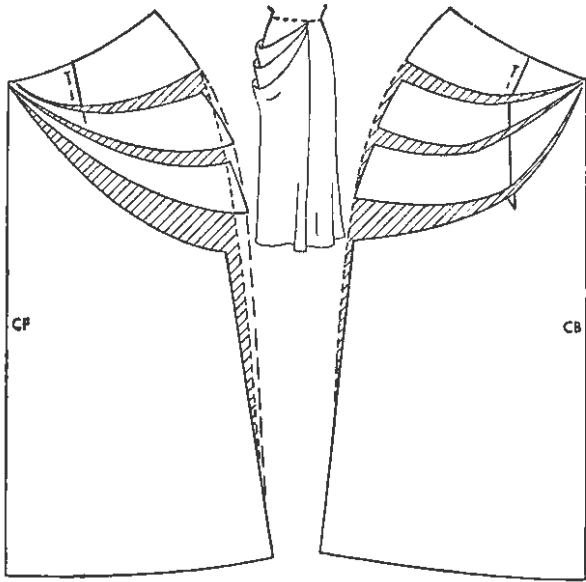


Fig. 62. Cowl effect in skirt drapery. May be on one hip only or on both, depending on design of blouse.

ASSIGNMENT

1. Write a summary of basic principles in developing patterns with drape and flare.
2. Go through current fashion magazines to collect a variety (10 to 12) of up-to-date garments using folds. Sort into two groups—those that might be made by flat pattern designing and those probably best draped. Give reasons for your classifications.

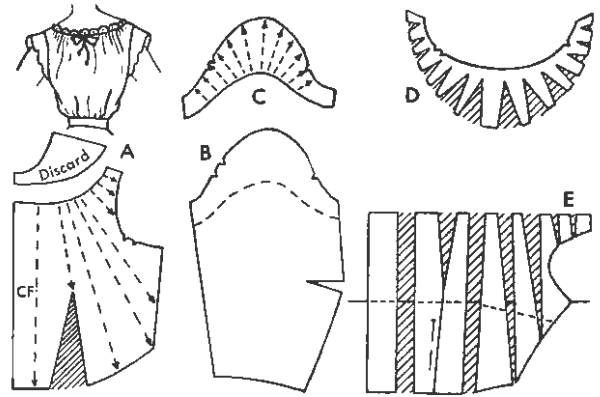


Fig. 63. Gathered peasant style blouse and rippled sleeve.

3. Select one in each group and make both by flat pattern designing.
4. In Figure 44, B, show how to change the basic darts so that there is one at shoulder and one at waistline to lie under the last pleat.
5. Explain reasons for each step in developing the blouse pattern (Fig. 63). It was designed so that the neckline could be cut with the crosswise grain on such materials as stripes, plaids, bordered patterns, and embroidered flouncing. Why would the top of sleeve pattern, D, need some darts pinned in before completing the pattern?
6. Select three designs from Figure 61 to make into patterns. Make one in cloth.

Chapter 7

YOKES

Yokes furnish both inspiration and temptation to the pattern designer—inspiration because their variety is boundless, temptation because that same variety of shapes, of tailoring, and of finishing intrigue the designer to over-decoration or obvious repetition. The principal use of a yoke is to control fullness—keep the upper area of blouse or skirt trim and smooth yet releasing any amount of fullness where needed over the chest, bust, or hips. In addition the seam between the yoke and body of the garment may be a concealed dart so that the visible darts may be made narrower than usual (tuck-in blouses thereby are less bunched at the waistline).

Basic design principles tell us to avoid obvious or equal space divisions; to use deep narrow yokes to create vertical eye movements and horizontal lines for shortening the figure; to have the yoke shape in harmony with the fabric (not to use round yokes for plaids or stripes, for example); to have the yoke shape repeat some other feature as shape of collar, cuff, or pocket; to have lines fairly simple and direct, not cut up into too small or intricate pieces; to have lines in harmony with the shape of the body—most lines that appear straight should be slightly curved, even square necklines and square yokes.

Yokes also offer pure design interest in themselves and may not have any fullness in connection with them at all (Fig. 64). Besides good spacing, a successful designer needs to know the techniques and tricks of good dressmaking* and

dress decoration. The yoke may be joined to the body of the garment in a plain seam, but if the seam is pressed away from the yoke, the yoke becomes an inset or underlay (we might call it a bib or tucker) in which case there should be no fullness unless in the yoke or bib itself. If the yoke is set on top, can it be edge stitched as a lapped seam or must it be faced and placed over an extension of the body section? Decorative scaming includes fagoting, insertion of ruffles, piping, binding, lace edging, and slot seams. The yoke itself may be beaded, quilted, hemstitched, embroidered, Shirred, smocked, tucked, draped, or pleated. It may be of contrasting fabric or grain.

If none of these devices is used, the created lines become just plain seams. But plain seams are more difficult than lapped seams on deep curves, corners, and points. The dressmaking secret is to trace seam lines exactly, then stay-stitch about 1/16" nearer the cut edge. Then inside corners and curves (concave) must be slashed to the stayline before joining. Do not cut such "fancy" shapes that few people can give them a professional finish.

Other design ideas include repeating a line several times for accent or variety; gradation of spaces to carry the eye on, or for rhythm; using a yoke shape related to, but enough different from, the neckline and face as not to be trite.

The yoke has unlimited possibilities in sleeveless blouses, in backs, in raglan, dolman, kimono, and epaulet blouses, in negligees and sport clothes to add width for activity, for fuller styles in slits, and combined and cut in one piece with pockets, collars, ties, panels. The yoke itself may be asymmetric in shape, a yoke entering a basic dart or French dart; a semiyoke; part yoke and part a free

* Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949); and Mansfield, Evelyn A., *Clothing Construction* (Boston: Houghton Mifflin Company, 1953).

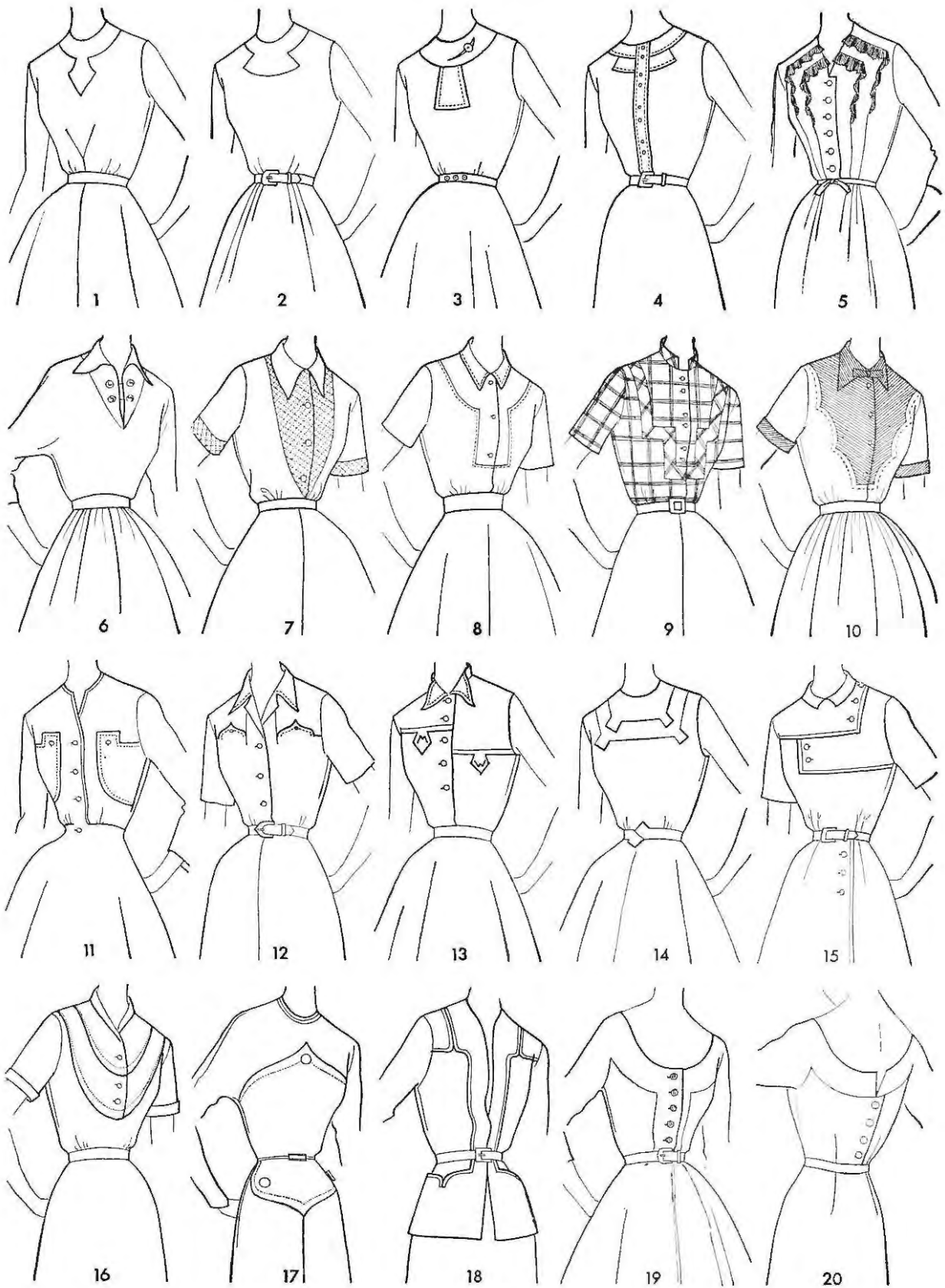


Fig. 64. Adapt one of these yoke designs to your own block.

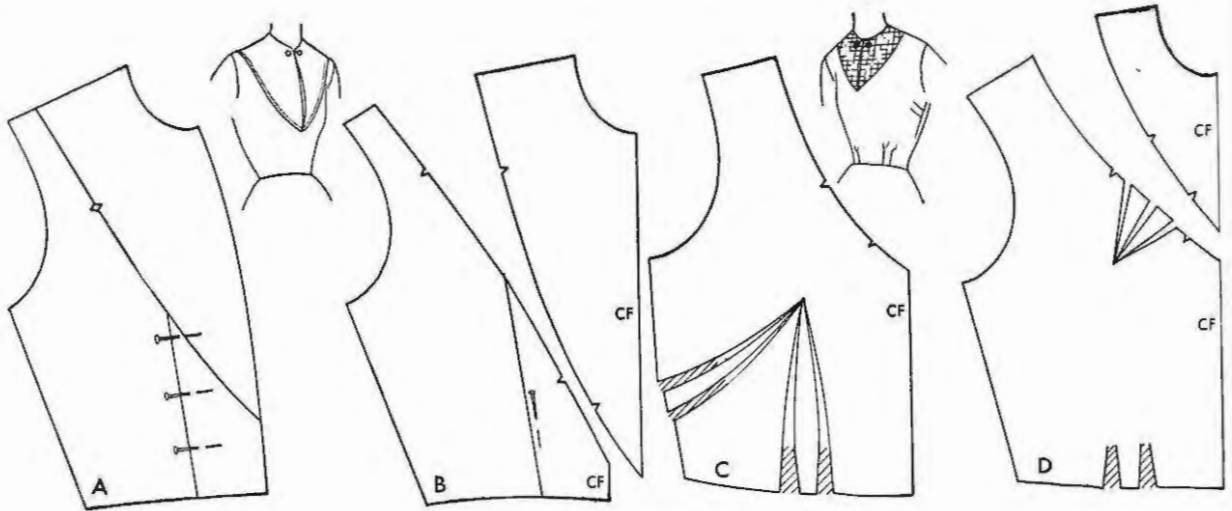


Fig. 65. Cutting yoke pattern without fullness.

plastron, tab or bretelle; it may lap right over left part way and left over right part way; the right half one tone, the left half another. If it is shaped to accent the armhole it may give a bolero effect.

The top of the skirt yoke may be so narrow it becomes a belt—the contour belt. The lower part of the blouse cut off like a yoke becomes a fascia or cummerbund or girdle. An unusual sports blouse had the yoke in the right front and back but not in the left half.

However, if the part to which the yoke attaches is full, the yoke itself should be simpler in shape and treatment because both parts of a design should not be equally interesting and because plainness in one part is needed to offset detail in another; then, too, construction may be needlessly involved. However, as a rule yokes are used to support some kinds of fullness, such as gathers, circularity, pleats, and darts.

A YOKE WITHOUT FULLNESS

1. Make a copy of the foundation pattern—a whole front—to sketch neckline and overlap if open in front. Buttons should be on CF. Pin in basic darts. On form, sketch all decorative and structural lines (Fig. 65).

2. On table temporarily unpin darts to rework drawing. Try on to correct.

3. Discard left half leaving overlap, if any, on right half. If diagonal or curved lines are used in the design it is possible that the yoke line can pass over point of bulge and still be becoming and in good proportions, A. Mark notches and cut apart on yoke line. The seam of the yoke is

a concealed dart line. The grain lines of adjoining parts are often unpleasingly awry. A binding or piping inserted in the seam may be used to break such an effect. Of course, the basic dart could be divided between underarm and waistline, or just one third of the basic dart left for the yoke-line seam.

In B, the basic dart was divided so that none of it entered the yoke line. In C, part of the dart was left for dart tucks at the waist and part eased into yoke line.

The nearer the yoke line is to the point of bust the less ease will result from use of the entire basic dart but the farther the yoke line is from the point of bulge the more ease there would be, hence the need for division as to location. It is partly because of this basic principle that the designer likes to use gathers below a yoke so that all or just the remnant of the basic dart can be absorbed in the slashes for fullness.

YOKES WITH FULLNESS

Where gathers or other fullness enter a dart the resulting yoke effect is spoken of as a semi-yoke (Fig. 45).

A torso or waist yoke is a good device for securing fullness over the bust and smooth neatness around the waistline (Fig. 66). In A, the pinned-in dart vanished because the design line of the yoke cut across it. A remnant of the dart was left in the upper section, B, and from there a single slash was made through the dart to the shoulder to flatten out the pattern and spread to provide space for gathers.

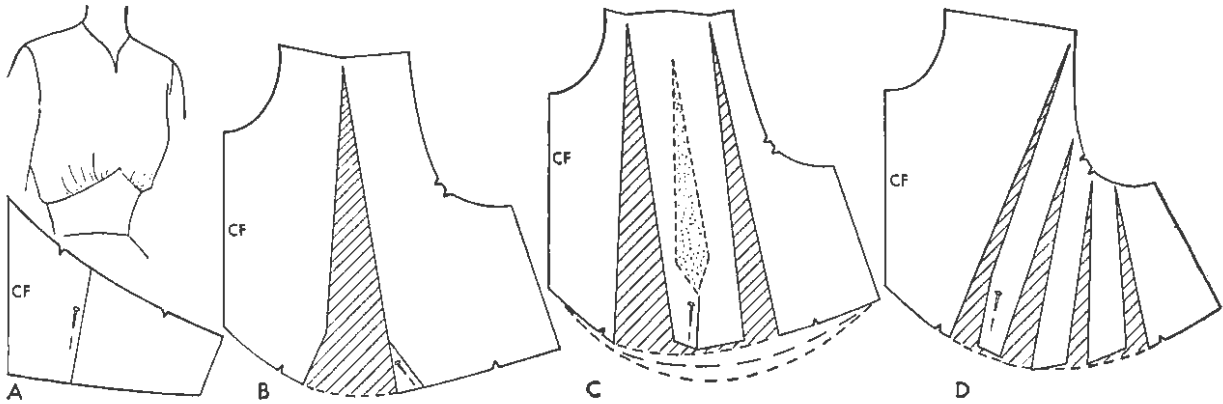


Fig. 66. Torso yoke and gathers.

In C, three slashes were made to distribute the fullness more evenly and hence the curve is smoother. Where a bloused effect is desired, extra length is required as well as extra width, hence the curve should be cut deeper (dotted lines).

Note in C that in spreading two of the slashes the dart slash seemed to want to overlap instead of spreading (straightening the shoulder seam above)—indicated by the speckled section. This overlapping frequently happens when many slashes are being made and does no harm if the total slashed areas are wider than the amount so cut out.

In D, the slashes start at right angles to the yoke line so they end in the armhole and the resulting folds of the gathers will slant just that way. It is an entirely different effect—do you or do you not want it? Remember that resulting folds will usually lie in the same position as the slashes were cut. The ends of slashes affect the shape of the pattern at the seams where they end.

Use notches freely in designing yoke patterns to show where gathers begin and end, to enable the user to assemble parts with speed and accuracy. In general, gathers should not begin closer than 1" from neck and armhole.

In Figure 52, D, E, F, and in Figure 54 we learned how to keep sections properly aligned after slashing by having a horizontal line, previously drawn, placed on a horizontal line on the fresh piece of paper.

Another technique that is most important is that of forming a good transitional line along the seam line to be gathered (Fig. 67). Slashes across a slanting yoke line result in a jagged effect when separated. The trick is tentatively to mark points midway between the high and the low points of

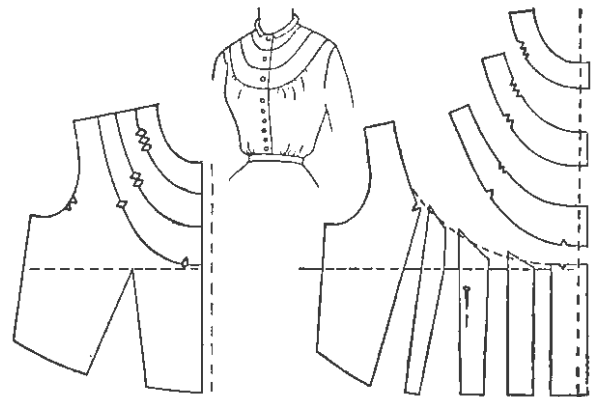


Fig. 67. Transitional line for curved seam.

each such paper section. Then make a smooth curve through these points—first free-hand and then with a curved ruler.

Note the care taken in Figure 67 to divide the shoulder seam—three parts forming a unit each equally spaced but the total yoke unit not equal in width to the rest of the seam. The gradation in width toward CF is also pleasing.

Back Yoke

Back yokes are cut like front yokes. The dart is left in the shoulder on deep yokes, but in a narrow yoke it can and should be folded out to disappear in or be concealed by the yoke seam line (Fig. 69).

Shirtwaist Shoulder Yoke

The standard shirt style for women has a narrow shoulder yoke effect similar to a man's shirt. In reality the back blouse (or back yoke) simply has the shoulder seam moved one inch or so forward, A (Fig. 70).

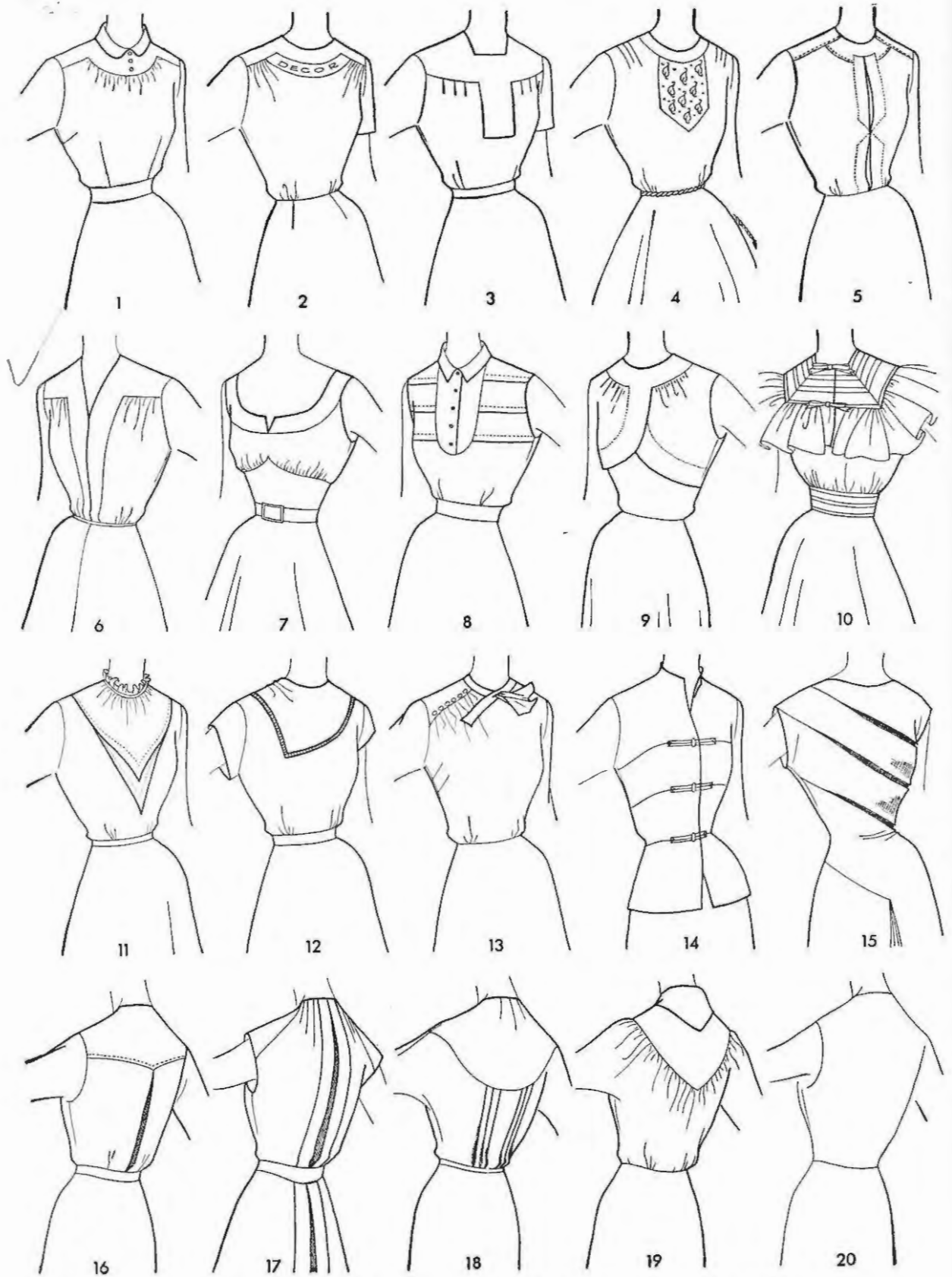


Fig. 68. Fullness for certain materials or areas is held in place by a yoke to reduce bulk there.

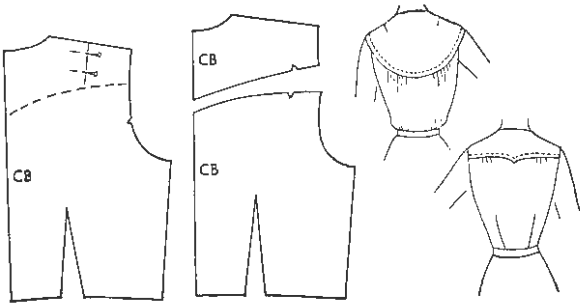


Fig. 69. Shoulder yoke in blouse back.

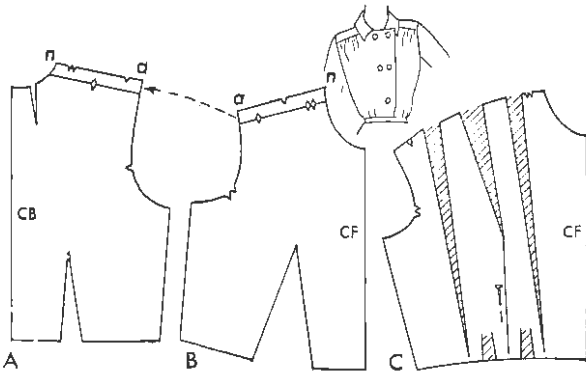


Fig. 70. Shirtwaist shoulder yoke.

Begin by shifting the back shoulder dart to open into the neck, A (Fig. 31); or fold it in and let it disappear in cutting a narrow back yoke (Fig. 69). Mark a strip 1" or 2" wide on front parallel with shoulder seam, B. Label neck end as *n* and the armhole *a* to aid in reassembling. Mark notches on the new seam line to indicate beginning and ending of gathers, about 1" from each end. Retain the slight but vital difference in the two ends.

Cut apart and attach strip to back, A.

In C, we divided the basic dart, by repinning it to keep two thirds at waistline and one third at shoulder. The one waistline dart was redrawn into two dart tucks. (See Fig. 89 for method of adding peplum.) The shoulder seam was slashed and spread for gathers.

A shoulder strap or epaulet effect is obtained by cutting $\frac{1}{2}$ " off the back shoulder and $\frac{1}{2}$ " off the front shoulder, then joining them into a strip 1" wide for a very narrow yoke. Label ends and mark notches on both strips before cutting apart. (Also, see epaulet sleeves, page 90.)

ASSIGNMENT

1. Select one of the first three yoke designs in Figure 64. Develop it on your own block, adjusting shape of neck and yoke lines until they are more suitable for you and more subtle in proportions or with more character.

2. Select a yoke design cut on straight lines. Adapt the idea to your block, using slight curves to improve it.

3. Make a pattern for a shirtwaist blouse similar to one in a late fashion magazine.

4. Create a design for a blouse for a wool suit—collarless, three-quarter sleeves not full, interesting emphasis through a yoke near CF neck—the part seen when jacket is partially open. What fabric would you consider? Making patterns to the specifications set up by someone else is the kind of training you need.

5. Select one blouse from Figure 68 suitable for a linen dress and make half-size pattern.

6. Design a pattern for a girl's shirt to be developed in denim—with some details that are not too mannish.

Chapter 8

CLOSINGS AND EXTENSIONS

Closings on dresses and blouses may be subordinated by flat plackets or fly closings but since the closing is an important functional line, designers do not often evade the issue. Rather, they make a point of accenting it in some ingenious or clever way. The better kind of designing avoids tricky, novelty closings, but shows good proportions and harmony in relation to other features of the garment with the decoration used to accent good structural, functional lines (Fig. 172).

STANDARD BLOUSE CLOSING

On a whole front copy of the master pattern, sketch in the complete elevation of all design lines. Many times you find it difficult to plan

spaces because you have not decided on the buttons. It is surprising how much depends on their size and number (Fig. 71). Draw them centered on CF (or CB) and rearrange design until satisfactory, A (Fig. 72).

Next draw a line for a buttonhole so that it ends about $\frac{1}{8}$ " (allowed for shank of button) beyond CF nearer the opening. Make it long enough for the button (diameter plus thickness). Then draw in the fold line of the hem so that there is enough space between it and the button rim to show off to advantage—about $\frac{1}{4}$ ".

The right half of the pattern is now ready for the hem (or seam and facing), so we cut along the fold line and discard the left half of pattern. Plan the hem (or facing) wide enough to com-

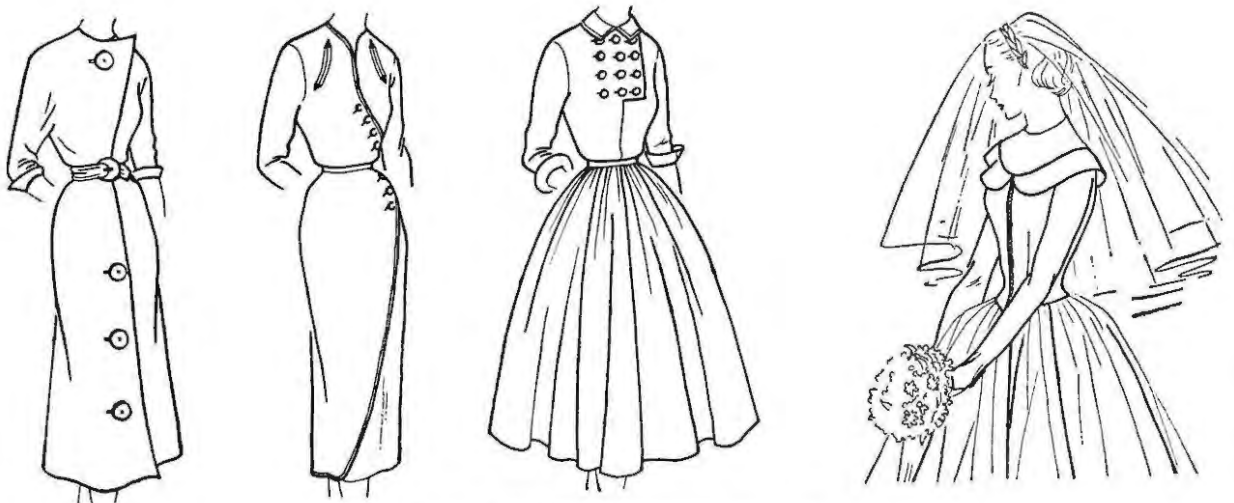


Fig. 71. Buttons to suit personality and style.

pletely cover the far end of buttonhole piping and a little over. On a fresh piece of paper, B, make a straight fold for a hem of this width. On the right side draw a line for a new CF line. Lay the right front pattern, A, in position on the new paper with CF's matched, and trace around. Turn the pattern over and match CF's again to complete drawing of neckline and waistline on the extended overlap, otherwise the result is not accurate; add seam allowance and cut out, B.

The left half is cut from the same pattern; when worn CF should match CF with buttons sewed on CF of the left half.

This pattern requires markings or directions for grain line (either on CF or fold line), for CF line, for fold line, markings for both buttonholes and buttons, as well as the usual notches and seam allowances.

When the hem is unfolded the neck seam line presents a jagged line, but folded it fits exactly. Beginners often place CF on the fold line, A, or just draw an extension on the pattern, E, which will not fit when folded. The same procedure of folding hem before cutting pattern occurs at bottom of short sleeve with sloping side seams (Fig. 6). This is the same principle as folding in darts, tucks, or pleats before cutting seams that cross them.

Buttonholes

Buttonholes are best made with the slit on the crosswise—in the direction of pull. To avoid a wide hem some makers get along by cutting buttonholes vertically, which generally gap, open easily, and look unsightly. In cardigan designs the band is not over 2" wide, usually only 1½". To center a button and plan a crosswise buttonhole, adequately covered underneath, a button not over

½" in diameter must be used. If larger buttons are important and a requirement, then the buttonholes must be vertical and the garments styled with some ease at hips and bust.

More decorative buttonhole placements may require off-grain location and generally a facing instead of a hem (Fig. 73). The line of cut should be in the direction of pull or weight, or should emphasize some space or line in the design, or otherwise be on the grain.

While piped buttonholes are much more professional than the machine-made ones, it is better to provide real machine-made buttonholes rather than none at all. Buttons sewed on without a buttonhole are nonfunctional and accent cheapness—with the possible exception of groups of tiny buttons closely arranged and numerous enough to make a unit of some strength and character.

In a suit jacket have at least one button, located at the waistline. Double-breasted jackets and coat dresses offer opportunity for unusual button placement, as do many of the surplice effects. Small buttons are effective arranged in pairs as well as rows. The top button should not be so high as to conflict with the neckliue seam. Self-covered buttons keep the button line somewhat subordinate. Occasionally oue or two quite decorative buttons are used for accent in a dress or blouse combiued with several smaller self-covered ones.

Piped buttonholes may be made more decorative if of contrasting fabric, corded, bias, or shaped (Fig. 73). Slits left in seams provide places for buttons and ties.

Box Pleat for Mannish Shirt Closing

For a man's shirt the box pleat will fall on the left front; for a woman's, ou the right. Fold toward the wrong side a straight edge of paper

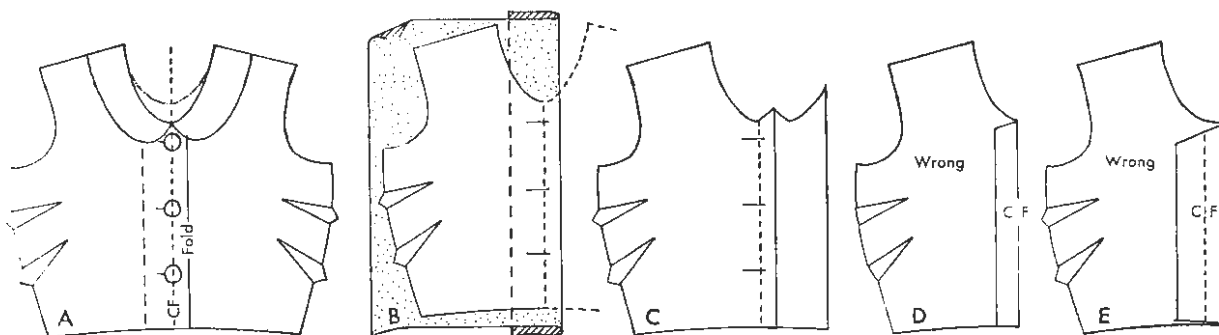


Fig. 72. Providing ample hem in standard blouse.

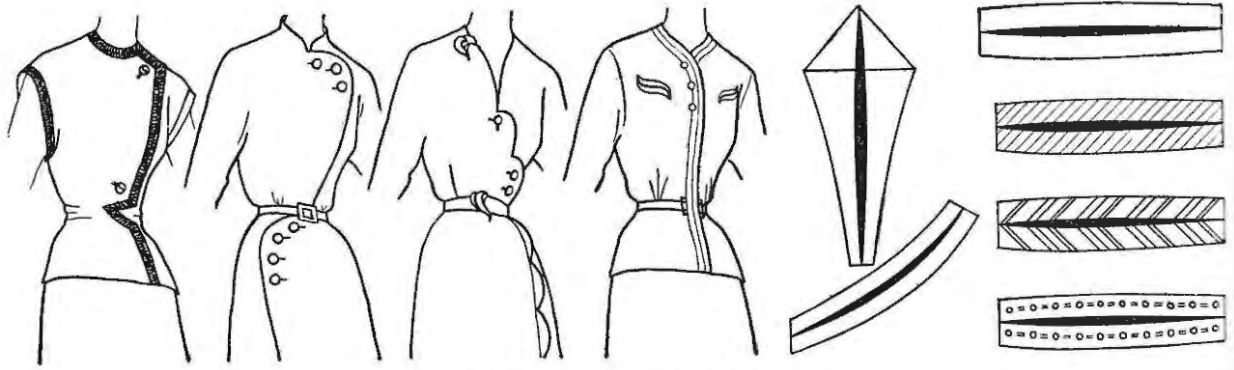


Fig. 73. Interesting buttonholes.

(or material with selvage removed) the width you want the box pleat, as $1\frac{1}{4}$ ". Then fold again completely over. Pin, baste, and/or stitch a $\frac{1}{4}$ " tuck along this second fold so as to enclose the first raw edge (Fig. 74). Open out the body of the material and press flat as a real tuck back toward the armhole. The first fold is now the free edge of the

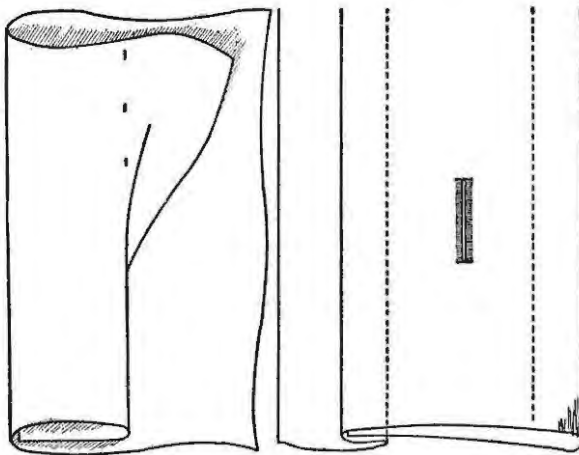


Fig. 74. Box pleat for shirt closing.

shirt and should be stitched $\frac{1}{4}$ " from the edge to match the tuck. The center of the box pleat falls halfway between the two lines of stitching. The CF of the foundation pattern is placed on the exact center of the box pleat. Also, see Figure 53.

The left half of the shirt is given a plain hem narrower than the box pleat. A separate pattern cut for the left half would be like the right half with the $\frac{1}{4}$ " tuck (of the box pleat) entirely missing.

Be careful to indicate all fold lines on completed pattern.

Shaped Edges for Closing

Shaping the closing line into scallops and similar units creates interest, A, B, C, D (Fig. 75). Shaped facings are required for finishing. The individual shapes should not be developed until the neckline and waistline are established. When a number of repeats are used, they should all be exactly alike, but if only two or three are used, they usually appear better graduated in size. The shape idea may be repeated elsewhere in the dress but with restraint—scalloped collar, cuff, and pocket are three times too many for accent of a center of interest such as scalloped front closing—use just one and then perhaps reduced in scale.

The left side or underlap would be cut like the right with a plain hem, so a separate pattern should be made. Some designs combine a straight hemmed front with a shaped, faced section, E, F, (Fig. 75).

In dressmaking, it is wiser not to cut the scallops until after the stitching is done. The edge to

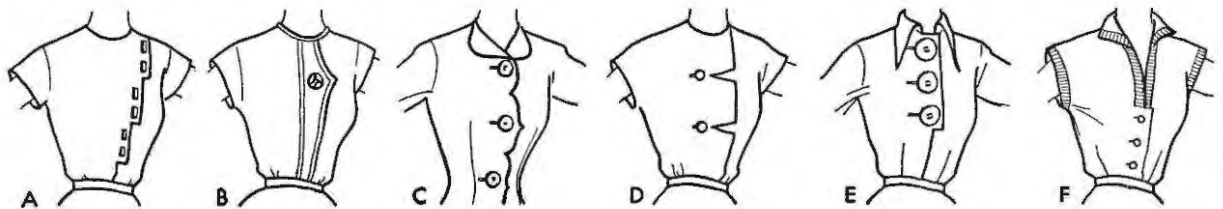


Fig. 75. Shaped facings and hems.

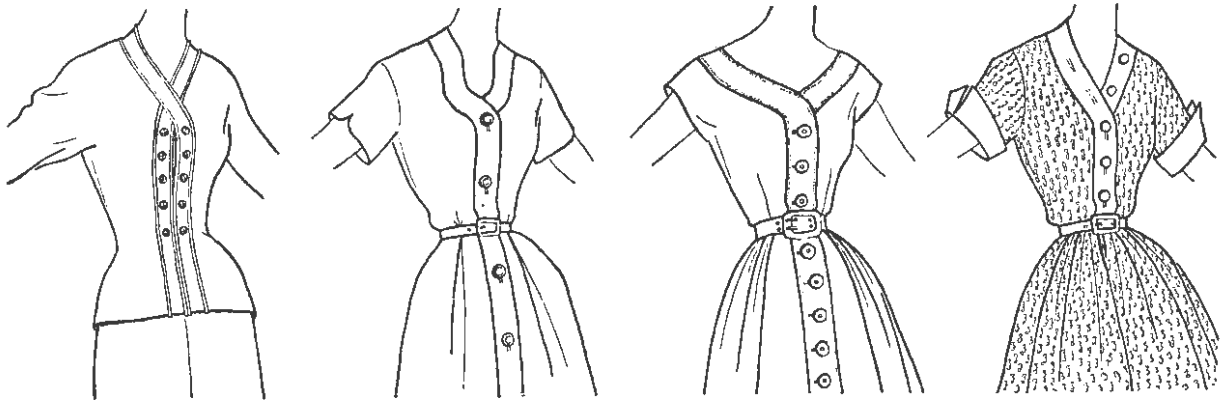


Fig. 76. Cardigan styles.

be scalloped would be cut straight and the scallop shape traced on the facing; with the facing pinned (or basted) in place the operator would stitch on the traced scalloped line, then trim to $\frac{3}{8}$ "– $\frac{1}{4}$ " and clip all curves before turning. On intricate designs the operator can stitch through a tissue pattern basted over the facing—the tissue is torn away before trimming.

The Cardigan

The cardigan style is quite traditional yet it can be given distinction by careful shaping of the neckline in the current mode (Fig. 76). The piece itself may be simply a shaped facing used decoratively by finishing to the right side—a simple method in self fabric, flat like linen. In combining contrasting textures as linen on lace or voile; satin on faille, or shantung on linen, the cardigan pattern is cut like a yoke and two of the pieces are cut in the fabric. While tailored in effect, the idea has been used in cocktail dresses with lavish embroidery and beading instead of buttons for decoration.

Simple cardigan and surplice styles usually have right and left halves cut alike, as do double-breasted styles.

Asymmetric Closing

Asymmetric closings involve designing the overlap in a different shape from the underlap, at least as far as is visible. The standard traditional closing is right over left in both front and back in women's clothes (left over right for men). But in dress designing, we find left lapping over right either because it lends an element of the unexpected or because other details require it for balance, rhythm, or proportion (Fig. 77). Some unusual closings employ a lap in one direction above and in the other direction below. A series may dovetail together.

The surplice diagonal line is the most common of all asymmetric designs.

Begin designing on a whole front (or back) to secure good lines and spacing. Plan the blouse lines in connection with the skirt. A surplice line high over the bust is usually more youthful than

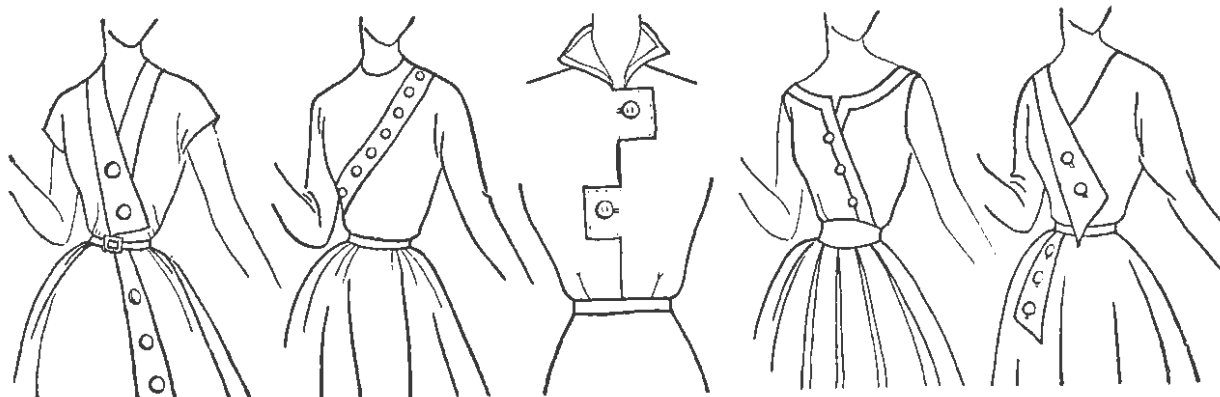


Fig. 77. Surplice and tab overlap.

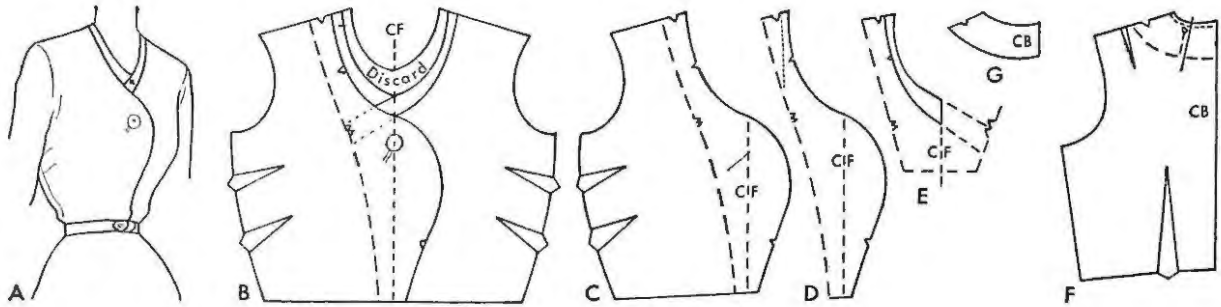


Fig. 78. Cutting facings to fit.

the low cut, matronly style. The surplice line is one of the major structural lines and should be carefully developed and accepted before details are added, if any, such as gathers, pleats, scallops. Decorative details should strengthen, seem to be a part of, or flow into or with the structural shape.

The underlap may be modified from the overlap to reduce bulk.

In some patterns the surplice line is cut on the lengthwise grain because it is more effective and to prevent stretching. In order to retain the good lines created by the designer, good dressmaking is aided by interfacings and facings and, in tailoring, by taping.

Shaped Facing

Shaped facings are easy to cut and easy to apply—often without basting. They are the best solution to a smooth effect on edges of unusual shape. They are used on sleeves, skirts, and collars as well as on closings for blouses; also on edges of overlapping yokes. Finished on the right side they are decorative if the maker has good techniques. They may give the effect of a yoke. They are the usual finish on cardigan cuts.

As a wrong side finish the facing should extend far enough back of the shaped edge to cover piped buttonholes; to stay back without tacking; and to give enough body to set well. Frequently it helps to cut the facing back far enough to tack to the French-dart line or other darts and seams. A neck facing as inside finish for a collar is 2"–2¼" wide, G (Fig. 78). Sleeve facings vary—1½" or over.

In home, school, or custom shops, the facing is best not cut until the first fitting has approved or adjusted the edge to be faced.

The secret of good facing is to make it an exact reproduction of the part to be faced, not only in shape but especially in grain (Fig. 78), and stitching it so that it retains its shape.

1. If the facing shape should cross a dart have the dart pinned in before copying, F—it usually disappears as you cut across it. Copy seam and CF (or CB) first. Label CF. Mark notches to match notches on garment. All of this can be done on the original elevation, B.

2. Remove pattern being copied. Sketch free edge of facing as discussed above (line of dashes). If both back and front have a facing, cut the shoulder seams the same length—2" or 3"—with notches to match, D and G.

3. Long narrow facings need a secondary grain line drawn in to insure proper layout on the fabric, D, (dotted line). Use the greatest care in drawing it to be exactly parallel with CF and extended full length on the pattern—not just a short line as many commercial patterns do. Cutting grain perfect is most important in good lapel work.

4. In E is shown the narrow inset or vestee, extended under the blouse front in exact shape of facing. When finished it can readily be matched and basted, buttoned, or pinned to the free edge of the facing.

5. Add the same allowances for seams as used in piece to be faced.

Facing for Overlapping Yoke or Dart

A yoke or dart to be stitched in position as an overlap, not as a plain or lapped seam, needs a shaped facing. The part that lies under it needs an extension—or underlap—exactly the same size and shape as the tucked effect of the overlap, that is the space between the outer design line and the stitching. The stitching may be an even distance from the edge or graduated, A, (Fig. 79).

1. On the overlap draw a dotted line for the stitching line, B. Use a tracing wheel to copy on a fresh piece of paper the cutting edge line and

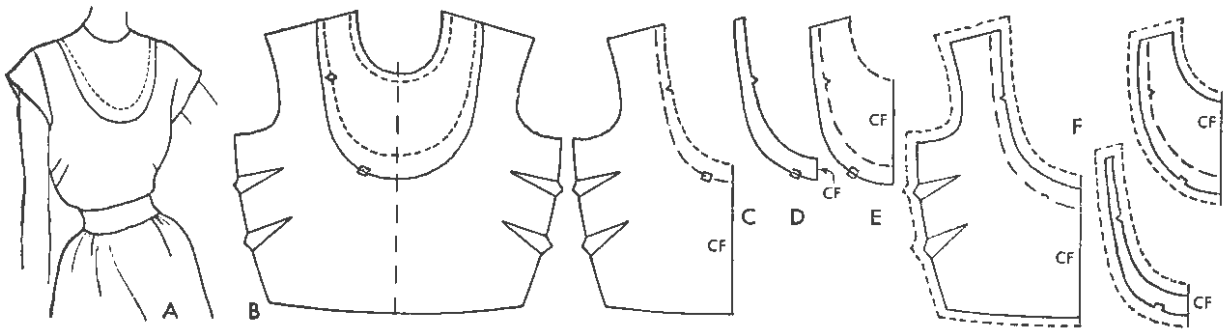


Fig. 79. Facing for overlapping seam.

the stitching line, as well as CF, grain, and other edges.

2. The yoke section is cut on the original yoke line, E; the body section on the dotted stitching line, C; and the facing for the yoke, D, the area between the dotted stitching line and the original line. In tracing, make one set of notches for joining parts, and special perforations for the stitching line.

3. All this work was done on pieces without seam allowances to save confusion. Now add seam allowances—all alike to make sewing easier, F. Check for accuracy.

4. Since the facing seam is enclosed it will be trimmed to $\frac{1}{8}$ "– $\frac{1}{4}$ " and slashed on inside curves and corners. The decorative stitching will need to be done on top alongside bastings that followed the perforated guide lines. Raw edges will be neatened, possibly graded—but standard width such as $\frac{1}{2}$ " since they are exposed seams.

Pockets

Patch pockets are merely carefully planned shapes designed to be faced, lined, or edge finished—for which you cut a pattern free-hand. By trial you view its effect on the finished pattern, muslin garment, or nearly completed dress.

Pockets may also be developed from facings of overlaps. In Figure 80, however, the underlap is on the yoke section and the overlap on the body section.

1. On the overlap draw dotted lines to indicate the finished shape of the pocket, A (Fig. 80). For the facing draw the overlap the width of the stitching plus shape of the deep pocket—to make the top of the pocket, A.

2. On the underlap, trace this facing shape to extend the underlap and thus make the under layer of the pocket. Trace to cut body separate from the yoke with its underlap.

3. Add seams, retaining grain and notches. The construction is similar to faced overlap. The pocket sections are joined on the wrong side with a plain seam after the overlap is faced and before top stitching.

Plackets

Directions for making plackets or any other finish are only indirectly the job of the pattern designer, but she must know how to make the appropriate placket in order to cut the facings, underlaps, and so forth. Indeed, the serious designer must have skilled experience in far more than sketching pretty pictures!

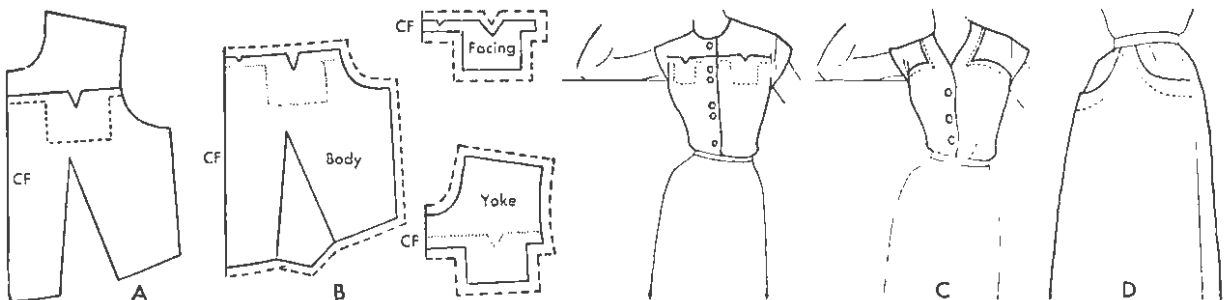


Fig. 80. Facing overlap to make pocket.

Side plackets are usually in the left side seam of a garment and slot seam plackets in center seams to retain a balanced effect, but also at underarm seams of blouses. For slide fasteners allow at least $\frac{3}{4}$ " seams for construction. For shaped princess seams a thin facing for the overlapping front is better, or the crosswise slashes at concave curves may require gusset insets to prevent drawing.

Plackets without slide fasteners require facings and/or extensions (see p. 138).

Tailored plackets as for mannish shirt sleeves, are usually cut while being made. After you learn

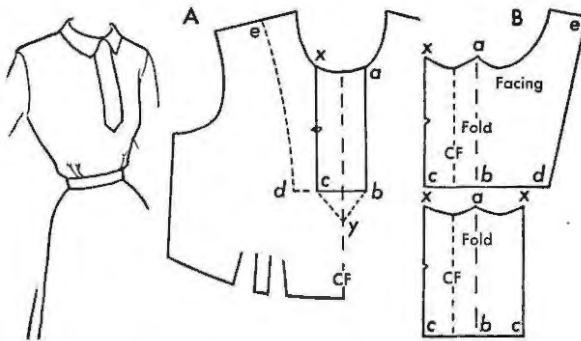


Fig. 81. Tailored placket at neck.

how to make one,* you will see its possibility for use elsewhere.

For a neck opening of this style an extension must be cut, with facing attached. If there is a decorative triangle at the base of the strip *y*, then the right front only is cut that way (Fig. 81).

On a whole pattern front cut out a rectangle *a b c x*, in the width and length desired (about $1\frac{3}{4}$ " by 9"). Cut a shaped facing, *a b c d e* (or *a b c x*). Attach the facing to the extension rectangles at *a b*.

Mark CF and fold lines. Add seam allowances to match seam allowances in the blouse front—fairly narrow ones such as $\frac{1}{4}$ " or $\frac{3}{8}$ " are easier

* Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949), p. 433.

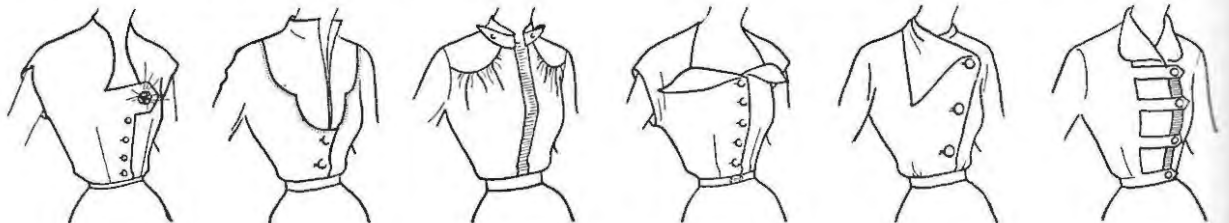


Fig. 82. Extension tabs and flaps.

to handle than wider ones. Retain notches. Construction is best in a firm, not too thick fabric. The usual stay-stitching and slashing of inside corners aid in construction.

Fly Front

A fly front is a tailored concealed closing frequently used in shirtwaist dresses, sport skirts, and topcoats. It consists of a double fold cut lengthwise the length of the opening and in width $\frac{1}{8}$ " or less than the hem of the overlap. Mark notches for attaching to overlap hem, CF, fold line, buttonholes, and cross sections for tacking to underhem. This pattern piece may be attached to under edge of the hem of overlap so that fly is cut in one piece with the overlap, but the separate piece is easier in construction. Add seam allowances.

In making, the top and bottom are stitched across before turning. After buttonholes are made the pressed piece is located under the overlap hem—to be stitched or tacked by hand crosswise between buttonholes to underside of hem. On the right side the fly is stitched in one with the hem of the overlap.

Extensions

Decorative extensions must be drawn free-hand or cut and then pinned or basted to the position desired. This kind of free-hand, truly creative, designing is similar to modeling on a dress form. Scraps of cloth or paper may be tentatively pinned in position, trimmed to shape, then incorporated as an extension of the pattern piece itself. Some designers create more freely with a pair of shears than by drawing with a pencil and eraser.

You can easily add tabs, flaps, scallops, and points in this manner (Fig. 82), but avoid commonplace divisions; often straight boxy lines need to be reduced to subtle curves. Avoid too many repeats.

Bands, straps, belts, and ties cut of straight

pieces are often needed to finish off a pattern. As a rule if cut lengthwise, they set and finish better. Use bias if you want soft draped folds—for dry cleaning, not washing. Straight pieces are inserted in seams as fins or flanges. Bands may be shaped like yokes and made to tack on, as a trimming, or to partly button in place. Around armholes folded bands soften and conceal the armpits. Crisscrossed at the shoulder they can be made to fit. Bretelles are bands, straight or shaped, inserted in seams across the shoulders. Shoulder extenders are found in seventeenth-century costumes and those of the 1830's and the 1890's.

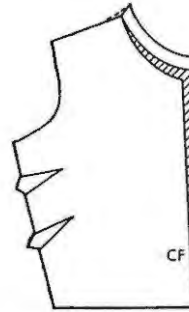


Fig. 85. High neckline for extra casual softness.

Many of these extensions can be cut out of the space left in a wide basic dart or pleat (Fig. 83), then faced or edge finished to reduce bulk.

Ties and ruffles are often added to a part of the pattern to be cut in one with the main piece. If the fabric width will not permit it, plan a seam to be concealed in a fold or knot (Fig. 84); a seam is needed if the tie needs to be cut on the opposite grain from the body.

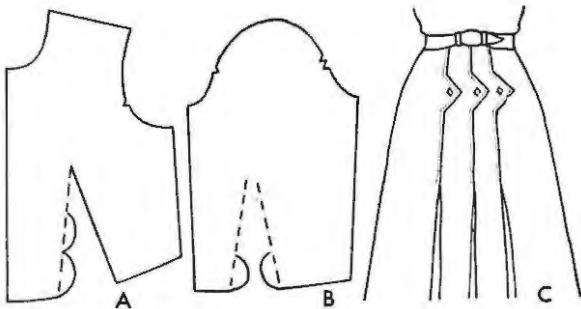


Fig. 83. Extension obtained from basic dart or underpleat.

Extended High Neckline

The high draped neckline may be cut like a cowl, A, Figure 85) to secure extra height and width.



Fig. 84. Ties, ruffles, bands, and flanges either inserted in seams, tacked on, or extended from part of garment.

Chapter 9

THE FRENCH DART

The French dart is really a seam formed by combining the vertical waistline dart with a shoulder dart. The standard line slants from mid-shoulder over the point of bust narrowing toward the center front as it enters the waistline. The standard line is a slight curve entering the shoulder and the waistline at right angles.

To begin the front pattern of a French-dart blouse, pin in the basic dart (or darts) of your front blouse pattern, A (Fig. 86). Sketch the most becoming line either over the point of bust, *a*, or slightly to the front, *b*. Place notch marks 3" above and 3" below the point of bust. Cut apart, B. If the line is in front of the bust, *b*, slash the side front over to the point of bust to flatten out the pattern. In any case, slash over to underarm seam and spread $\frac{1}{4}$ "– $\frac{3}{4}$ " (less for slight figures, more for full figures) to provide more ease between notches, C.

In the back pattern, first extend the waistline dart as high as shoulder blade prominence, D. Pin in both shoulder and waistline darts. Draw in new French-dart line so it meets the one on front at the shoulder, slanting as desired, E. Draw the line

more straight than curved to avoid accenting round shoulders. Place CB at waistline $\frac{1}{2}$ " away from a straight line which is perpendicular to the midway point of waistline, F. Thus, a seam is required in the center back to aid in good fitting.

On both the side front and side back sections fold the piece in two lengthwise to secure a lengthwise grain at right angles to the bust or waistline.

Use of the French-Dart Blouse Pattern

The French-dart blouse pattern may be used as the first step in developing patterns for a French bodice or basque, a French-dart jacket, and a princess dress. Designers often use it as their basic sloper. It is the basis for middy styles, blazers, jackets, vests (Fig. 87). The seam line itself may be accented with decorative details such as ruffling, pockets, scallops, insertion, cording. It is a good seam for fitting and at different angles divides the blouse area into shapes that flatter the figure—(wide-shoulder effects balance wide hips and make the waistline seem narrower; vertical lines give the effect of tallness).

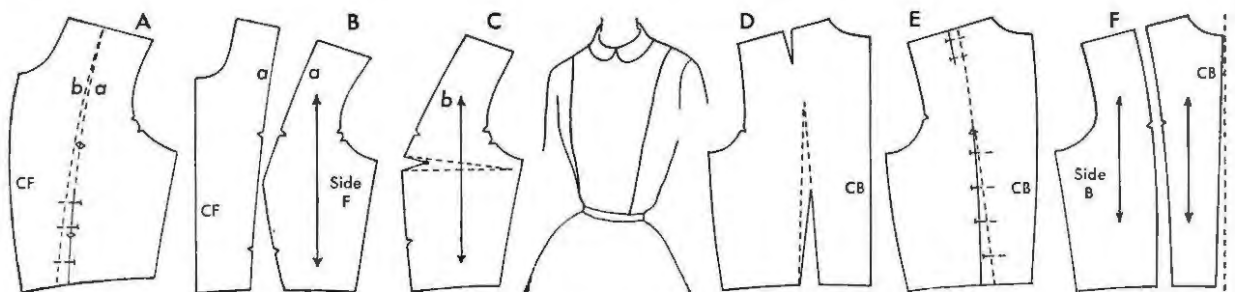


Fig. 86. Making French-dart blouse pattern.

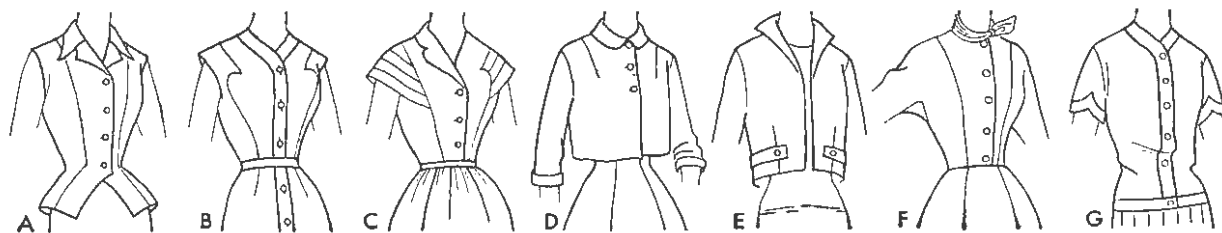


Fig. 87. Versatility of French dart.

THE FRENCH BODICE OR BASQUE

The French bodice is a regular French-dart blouse fitted more snugly leaving only one or two inches of ease at bustline and less ease on the chest and neck. This type of bodice is best balanced with a full peasant or bouffant evening style of skirt. It frequently has a low neckline. Sleeveless and camisole types of blouses of jersey, linen, or piqué are built on such a bodice pattern (Fig. 88).

Make a muslin copy of the French-dart blouse pattern and through fitting all seams more closely, correct the pattern. Generally, the shoulder seam needs to be deeper (about $\frac{1}{4}$ ") to make the neckline on low cut bodices fit closely, A (Fig. 88). The underarm seam will need to be closer to give a neater area around the armhole if sleeveless. If not sleeveless, be careful to tighten sleeves as much as underarm seam. Fit the side front seam to emphasize the natural curve over the bust. If the armhole flares or gaps near the front or if a diagonal wrinkle shows, there needs to be more ease over the bust (rip side front seam and push some up, or in the pattern spread the bust slash slightly more, Fig. 86, C).

The lower edge of the basque may be shaped in curves or points, F, in which case the top of the skirt will need a matching shape removed before gathers or pleats are introduced.

Use the corrected bodice pattern as a basic

pattern by changing the fundamental dart, making other seam lines (panels, yokes), developing a new neckline, armhole, or waistline, and so forth. The new darts may be full length seams or shorter darts, asymmetric or curved. A good dressmaker will stitch them as curves and a good presser finish them over a round pad to retain the roundness.

THE FRENCH-DART JACKET PATTERN

1. Use the principles discovered in the French-dart blouse pattern. Begin with front blouse pattern with basic waistline dart pinned in to make a bulge, A (Fig. 89). Extend the vertical or French-dart line from shoulder to waistline in any desired slant or curve passing through pivot point of bust, B. Cut apart. Slash the side front section from bust over to (but not through) the underarm seam and spread $\frac{1}{2}$ "- $\frac{3}{4}$ " for extra ease, C.

2. Cut a peplum from top of skirt front, A, level with the floor—it will probably be 7" at CF, $7\frac{1}{2}$ " at side hip, and 8" at CB. Fold in fundamental dart extending it to lower edge of peplum. On this peplum draw a line matching the French-dart line of the blouse at waistline and slanting away from CF at lower edge so that both front and side front sections are wider at lower edge than at waistline.

3. On a fresh piece of paper arrange the blouse front section to fit the peplum front section at

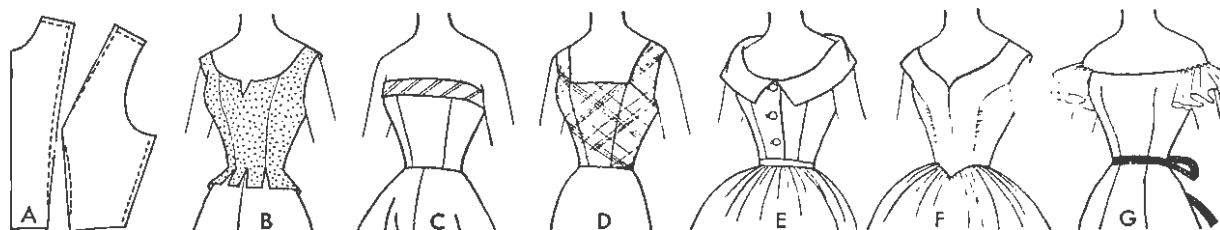


Fig. 88. French bodice or basque.

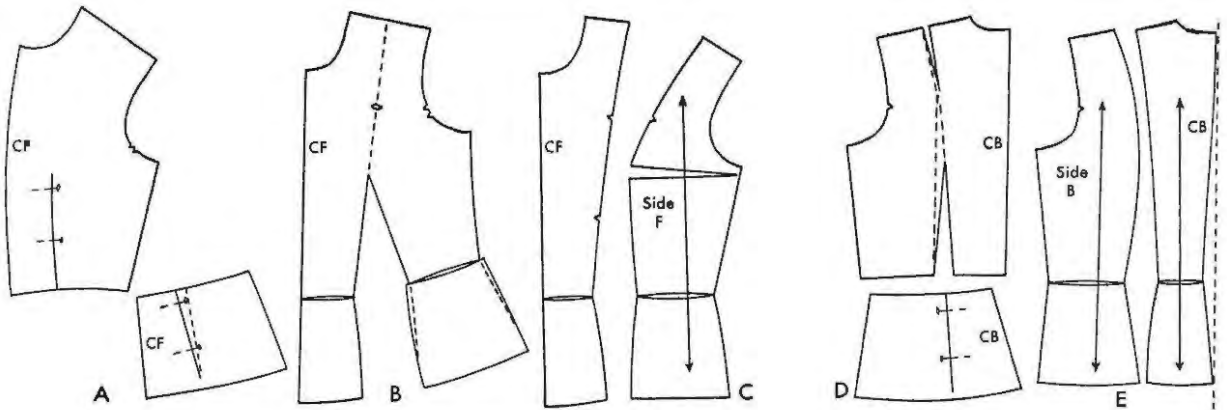


Fig. 89. French-dart jacket.

waistline with both on the same vertical line at CF, B or C.

4. Fold the side front section and side front peplum section in half lengthwise to make a lengthwise grain line as nearly as possible perpendicular to the bust, hip, and waistline. Place top of side front peplum to fit lower side front of blouse with grain lines straight. Should the two waistlines not match exactly, draw in a transitional curve, B.

5. The back is first developed into a back panel section and a side back section, matching the front dart line on the shoulder. On a fresh piece of paper draw a vertical line, E. Place CB of back section on the line at the neck and $\frac{1}{2}$ " away from the line at waistline. For the grain line in the back section draw a line parallel with the last line drawn—it practically bisects the back panel. Make a new grain line in the back panel of the peplum to bisect it or be perpendicular to both hipline and waistline. Arrange peplum to meet back panel at waistline with grain lines matched. The side

back section is developed in the same way as the side front section.

All seam lines that have been ruled straight should now be trued with slight curves. In general, have all lengthwise grain lines perpendicular to the bust, waist, and hiplines.

Fitting the Pattern

Make up in muslin and fit the basic French-dart jacket pattern. Do not try to fit as snugly at waistline as in a dress. Some fitters like a tape tacked inside the jacket along the waistline to hold in the slight ease that should remain. Bathing suits, for example, might be fitted "skin tight." Frequently, the side front needs more letting out over the bust curve, then easing and pressing to get a smooth effect. Hips are fitted over a skirt in curves to secure the silhouette that is in the present fashion. Use these changes to correct the basic jacket pattern.

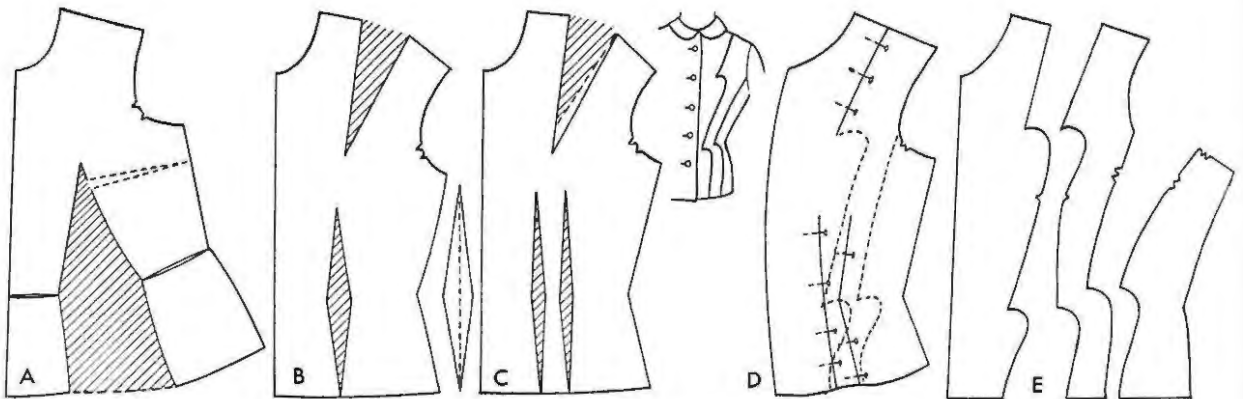


Fig. 90. Using basic French-dart pattern to develop a jacket pattern.

Using the French-Dart Jacket Pattern

Use this new sloper of four pieces for all kinds of hip length jackets and over-blouses. (Quarter-size French-dart sloper will be found in Fig. 181.)

The two front pieces can be arranged in different positions (Fig. 90). In A, all the bodice dart is below the bust and since the hemline of the side front section is not on the grain, it will need facing instead of hemming. In B, the shoulder dart is only the amount left after closing the waistline dart until the hem lines of the peplum meet. In B, the hem line is straighter; thus shoulder dart provides more softness over the bust and a place for extra fitting; and the dart below the bust is less wide and bulky.

Boxy jackets and middy blouses both use type B; in the back the normal shoulder dart is retained but the waistline darts are omitted entirely. Semi-fit the waistline darts in the front according to the present fashion. A bolero or Eton jacket is made by cutting off the pattern at or above the waistline. Back shoulder darts are retained to keep grain straight across shoulder (Fig. 87, D and E). Vertical waistline darts create closer styles. Front shoulder darts help to keep the lower edge on grain. Circularity is created by slashing wherever flare is desired from lower edge up to but not through opposite edge of pattern.

In Figure 90 note that the lower dart is either a triangle atop a rectangle, A, or an elongated diamond, B. In either case it may be copied and divided into two or three narrower darts and arranged near by (see Fig. 35). In C, (Fig. 90) the single dart is divided into two. Try to have centers of new darts on the grain. Draw edges of all darts first with a straight ruler—later true them over the hips with a curved stick to give the natural silhouette of the current mode. Since they are so narrow they can be shortened considerably, but the shoulder dart can be shortened not more than 1" or 2". It is frequently covered with a decorative pocket or arrowhead.

In D, the edge lines of these darts have been shaped into design lines. It is easy to pin in the new basic darts to give the fitting bulges (bust and hips). Then, sketch in the new seam lines that coincide partially with the darts. Mark notches and waistline for ease in assembling and cut apart on these new style lines, E. Add overlaps, underlaps, facings, and pockets where indicated; lastly, add seams.

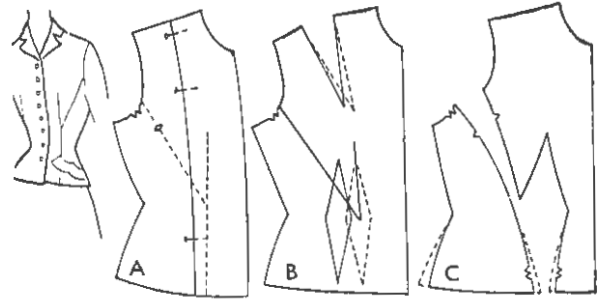


Fig. 91. Changing dart location in French-dart jacket pattern.

In general, where new design lines do not coincide with basic darts pin in the basic darts to sketch the proposed lines which should not be located more than 1" or 2" away from the basic ones, A, (Fig. 91). Then unpin pattern, erase old dart lines and draw in new ones of the same size next to the design line. B. Repin and cut apart on design lines, C. Obviously, it is easier to secure a perfect fit if at least one of the new darts is near the French-dart line or crosses the point of bulge, but that location is seldom pleasing. The more darts you plan, the shorter they may be and hence the smoother the result. Darts entering darts and darts concealed in seams as yokes or panels create interesting details and enable the designer to conceal the standard basic darts, but they require more fabric and a higher degree of skill in tailoring. Try to arrange all parts with the horizontal lines on the horizontal grain and the vertical parts centered on the lengthwise grain, thereby creating a garment that will be more easily fitted and will retain its shape longer.

The peplum section may have extra flare or pleats added along the edges of each seam (Fig. 92). Figures that have large hips or bust in proportion to the waist are more easily fitted if there are extra vertical seams, or if the natural waistline seam is in part or entirely retained. The more seams there are, the more opportunity there is for flare, pleats, and other decorative details, as well as snug fit. Investigate the cut of doublets in the sixteenth and seventeenth centuries.

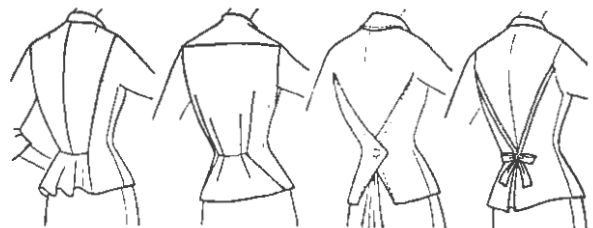


Fig. 92. Accent in peplum.

TUCK-IN BLOUSE

The American standard blouse currently has the peplum or shirttail cut in one with the blouse. Follow steps A and B (Fig. 90), then divide the large waist dart into two or three narrow ones, C. Develop the back pattern similarly. Have peplums 5"-7" deep. Figure 93, A is the same as Figure 90, C, with shoulder dart converted to underarm position.

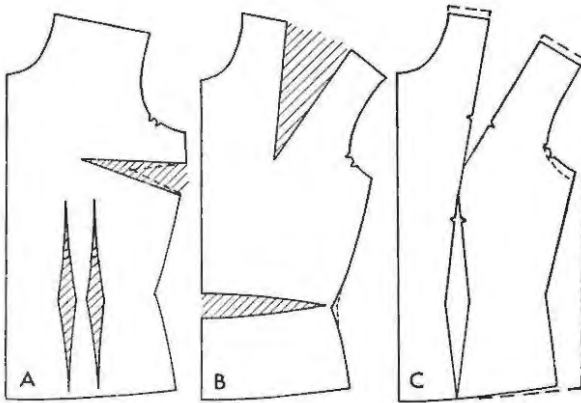


Fig. 93. A, tuck-in blouse; B, over-blouse; C, box jacket.

OVER-BLOUSE

The over-blouse avoids vertical darts in the peplum and waist line. Begin with foundation blouse pattern having shoulder dart. Cut peplum 7"-10" deep from top of skirt, B (Fig. 93), and fold out the dart. The gap between peplum and blouse is left in—thereby forming a wrinkle or soft fold across waistline. Middy and blazer styles are developed from this pattern.

BOX JACKETS AND COATS

Make a foundation coat pattern and test in muslin before designing details like yokes, collars, and lapels. Cut shoulders more square to allow for shoulder pads or for coat to be worn over suits depending on the current mode; lengthen sleeve cap accordingly. Cut the armhole 1" deeper and sleeve with 1" longer underarm seam as in shirt sleeve, (Fig. 112). It is common practice to let out seams $\frac{1}{4}$ "- $\frac{1}{2}$ ", but this change is best done on the model. Also, see Figure 180.

For the front begin with the French-dart jacket pattern having part of basic dart at shoulder and part at the waist, C (Fig. 93). For the back retain shoulder or neck darts. Follow the underarm seam straight down or slanting outward, slightly, to the

desired length. The waist darts, front and back, unclosed, are absorbed in the flare or looseness of the jacket. For more flare see Figure 57.

SMOCKS

A smock or duster is simply a long coat, cut like a loose box coat or developed from a French-dart or princess foundation pattern. Flare may be cut by slashing for circularity. Raglan sleeves, roomy armholes, yokes, cardigan neck lines, convertible collars, shirt sleeves, fly fronts, shirtwaist closings, and roomy pockets are some of the functional features to include.

Uniforms for professional women are built on similar lines but more neatly fitted at waistline. They deserve more interesting details and smartness of silhouette than they are getting, perhaps an asymmetric collar or shaped closing. In many cases white might be avoided.

THE PRINCESS CUT

The French-dart jacket pattern may be converted into a princess style dress by continuing the side seams with straight lines. Since the peplum was 7" deep, the length of each line should be the length of your skirt less 7" at CF, side seams, and CB. A check on your personal measures from the 7" line to the floor will reveal a difference in length—the back usually 1" longer and the side $\frac{1}{2}$ " longer than the front—and this fact should show up in your pattern. This difference was probably taken care of in cutting the first peplum for the French-dart jacket pattern (Fig. 89).

First draw these lines down from the hip line parallel with the grain, A (Fig. 94). Then flare each one the same amount—as much or as little as your design requires. Each new flared seam line should measure the same length as the adjoining vertical one, but those at the front may be higher and narrower, those in the back lower and wider. Connect the lower hem lines in smooth curves as in skirts. See skirts, Figures 157 and 158, and dresses, Chapter 14.

COSTUME SLIPS

Slips are seldom made at home these days, but a sheer dress usually requires its own special under-slip of matching color and design. The dress pattern is used in order to have the bodice top, dart, yoke, and gore lines of the slip follow those of

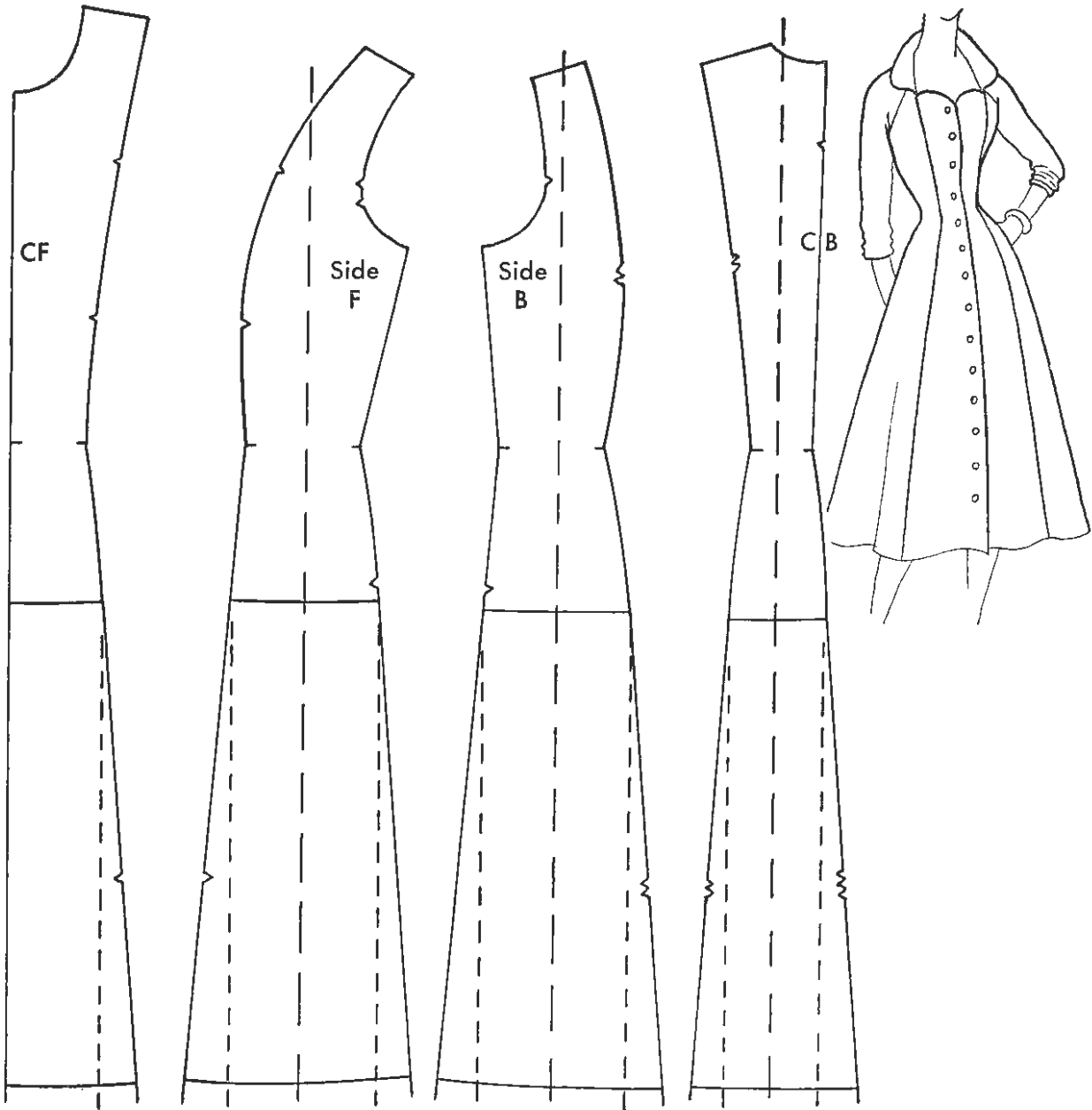


Fig. 94. Princess dress developed from French-dart jacket pattern.

the dress. The bodice top, of course, needs to be cut lower but harmonious with the shape of the dress. Seams and darts in the bodice top should be made more snug with darts in place of gathers. In the skirt, take out some of the flare you put in when designing the dress gores.

Narrow slips cut bias are unsatisfactory, but for full evening dresses styles cut on the bias fit the hips snugly and flare gracefully below. If you are cutting on the bias, have alternating bias placement for right and left sides to insure even balance.

The slip should be considerably less full than its full-skirted dress; for example, a full net or chiffon dress 6 or 7 yards at the lower edge would take a slip 3-3½ yards wide.

Figure 95 shows a slip developed from French-dart princess dress or French-dart jacket pattern (Fig. 89).

Designing general-wear slip patterns is a specialized field not within the scope of this book. More darts, yokes, and seams with shadow-proof fabrics are real consumer needs. You can apply the prin-

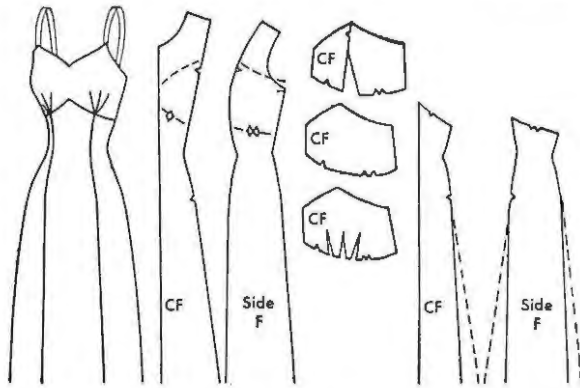


Fig. 95. Costume slip developed from princess dress pattern.

principles of pattern designing of dresses to make a satisfactory slip to your own specifications. See dresses, Figure 179.

Negligees and night gowns are developed like coat, slip, and princess patterns.

SUMMARY

1. The French-dart pattern is a handy sloper for developing coats, jackets, and one-piece dresses as well as the French bodice.
2. It is basically a seam created by uniting the waist dart with the shoulder dart in a smooth line.
3. The basic waist dart of blouse may be joined to the basic waist dart of skirt, making a dart

that looks like a triangle above a rectangle in front, a long diamond in the back.

4. As in other basic darts it may be divided into several, or relocated; or shortened into softer dressmaker darts, or dart tucks, ease or gathers; or diverted into new seam lines, as yokes; or be given decorative darts or be combined with decorative darts, tucks, pleats, drapes, or circularity.

5. Technique:

Use a whole front. Pin in all darts and seams.

Sketch complete elevation including new neckline, collar shape, overlaps, buttons, buttonholes, pocket, new design lines.

Relocate darts to be nearer new seam lines or to end on a design line.

If a bulge occurs because new dart lines do not fall on the French-dart line, relocate the French-dart line by redrawing. Or slash to the point of bulge from nearest point to flatten out—then spread to be marked by notches and labeled "ease."

Add seams, facings (or hems), and extensions.

ASSIGNMENT

Develop a pattern for a jacket that is symmetrical in design (Fig. 96).

Develop a pattern for one that is asymmetrical.

Complete the last sketch shown to make an asymmetrical design.



Fig. 96. Jacket designs.

Chapter 10

SLEEVES

Over the years the history of costume has focused our attention on the silhouette of the costume. Details intrigue our interest momentarily, and dressmakers are constantly making the same kinds of decorations like tucks, shirring, cording, and buttonholes but using them in different ways or different places. It is the silhouette that changes—gradually from year to year. The silhouette is determined chiefly by outlines of skirts and sleeves. In the 1890's the leg-o'-mutton sleeve style prevailed but in that era of ten years it varied from a skimpy top to a voluminous puff. In the 1930's the darted top sleeve prevailed, in the 1940's a smooth sleeve but a padded shoulder ranged from tailored squareness to bulging, football shoulders. The 1950's show a return to the natural shoulder with just enough padding to make tailored garments smooth along the shoulder seam (Fig. 97). However, modern tendencies show that designers are freer to choose any style or silhouette to suit a given problem, so that one does not appear exotic or freakish in either full or skimpy sleeves provided they suit the person, the fabric, the occasion, and other lines in the costume.

Whatever the variation in silhouette certain basic styles are used every year to snit different

occasions, fabrics, and personalities. The length of shoulder seam, the shoulder pad, height of underarm seam are slightly different each year, hence your master pattern needs revising. Any changes made in these basic measurements are carried over to change the sleeve. Check your sleeve pattern by a muslin fitting (Chap. 2) and the standards given on page 23.

A trim, snug wristline for long sleeves, or a neat three-quarter sleeve keeps the silhouette compact. Wide full sleeves at waist or hip level add that much to the silhouette. A little extra width carefully used near the shoulders may offset or balance wide hips. Fancy sleeves are to be avoided for proportions that are off average. There is not as much room for detail designing in a dress sleeve as in a larger coat sleeve. Very full or elaborate sleeves are best combined with slender cuts such as a sheath dress, a basque blouse, or a low neck.

Sleeve Length

Short sleeves provide comfort for activity and warm weather. How short varies with the current fashion but spring blouses usually show shorter short sleeves than those in the fall lines. Young girls wear them shorter, too. In cutting them off measure down from base of sleeve cap the same

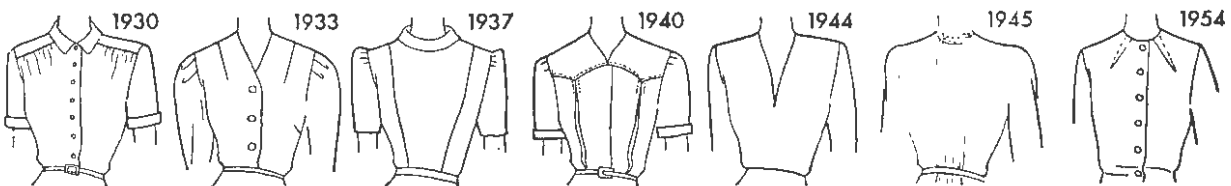


Fig. 97. Silhouette of sleeves dates a frock.

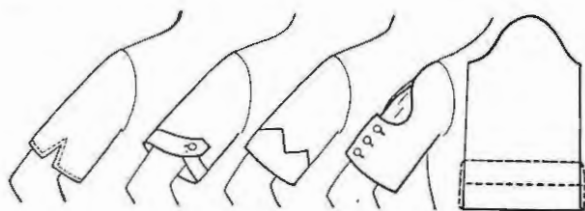


Fig. 98. Short sleeves

distance on each side, rule a horizontal line across parallel with base of sleeve cap—of course, both are at right angles to the grain line. A short sleeve should not look like a long sleeve whacked off, so we straighten the underarm seam, or even slant it out a bit. Hems and double cuffs may be cut as part of lower edge (Fig. 6, Fig. 98). Hand hemming that shows does not look professional—two or three rows of machine stitching or a hem turned to the right side seem more tailored. Shaped edges add interest and require a facing. Scallops, notches, or slits may add an interesting note. If the short sleeve is the least bit circular, a shaped facing must be cut. A very short sleeve with most of the ease removed works up well if lined.

For three-quarter length sleeves measure up the same distance from the wrist all around, as 5, 6, or 7 inches, thereby retaining the curved shape.

Cut the sleeve the correct length before working on details. Cuff allowances should be cut off before developing fullness in the main part of the sleeve. Working with a short sleeve pattern for details in the upper sleeve simplifies the procedure; when complete if you want a long sleeve it can be pinned together with the lower section that was cut off—of course, grain and backs matched.

Basic Principles

There are very few new principles to be found in developing sleeve patterns, only new applica-

tions of the basic principles. Hence, many explanations will be brief; either the illustration will clarify the procedure or a reference will be made to preceding chapters or illustrations.

1. As in blouses, to change the location of the basic dart pin it in and make a slash where you want the new dart, so that it ends on the point of the bulge, B and C (Fig. 99, Fig. 31). Use the lower dart for designs located in the lower sleeve area, and the upper dart for top fullness, C.

2. As in blouses, change one dart to three, D (Figs. 99, 35, and 40). Two or three darts are less bulky and look smoother. The same pattern may be used when it is desired to gather or ease the fullness at the elbow.

3. A shaped yoke at the top or shaped cuff at wrist is made like any other yoke section, E, drawing a line for the new design. Mark with notches for help in reassembling and to indicate where gathers begin and end, then cut apart.

4. Fullness in sleeves, F, is obtained by the same techniques as in Chapter 6. *Circularity* or *ripple* is added by slashing from the bottom to the top and spreading, A (Fig. 100). This pattern can be gathered, also, into a band.

Gathers at the top only, B, are obtained by slashing from the top to the elbow dart or the wrist, or short sleeve hem, and spreading. Gathers at both top and bottom, C, are developed by cutting on lines where lengthwise folds are desired and spreading evenly with horizontal grain lines matched.

Puffiness is also secured by added length at top or bottom. Free-hand drawing is used. The amount of height or length to add is determined by trying the fabric on your arm or a dummy. See dotted lines added to A, B, and C. The curve of the back at lower line should be deeper than the front curve. Fold sleeve pattern (Fig. 101) in half lengthwise to see that the back curves both

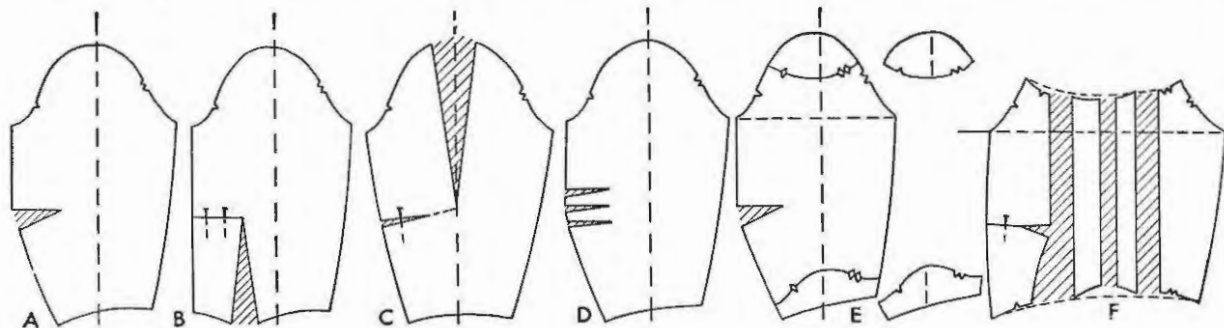


Fig. 99. Pivoting elbow dart. (You may center grain in cuff.)

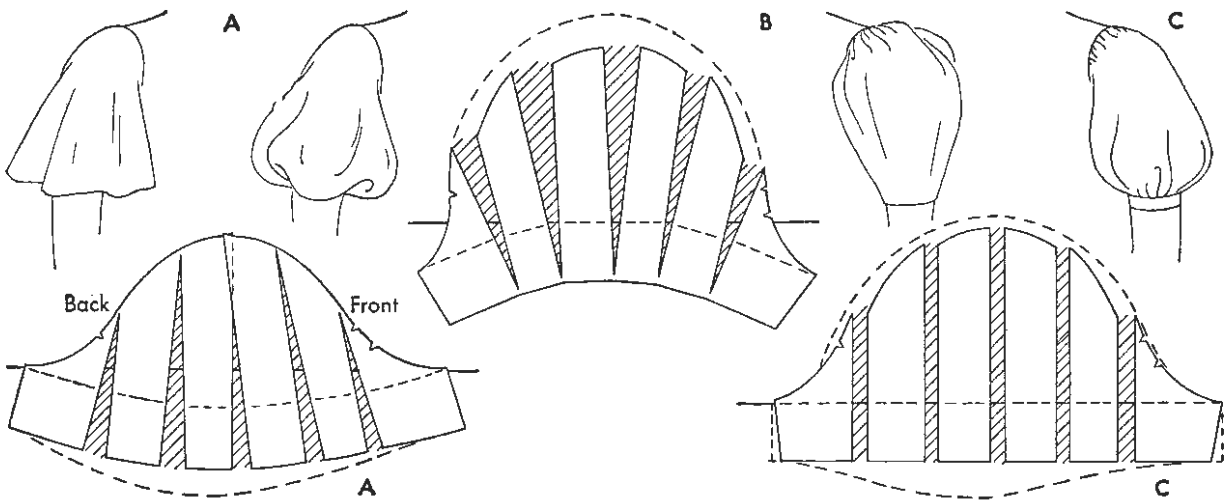


Fig. 100. Slashing sleeve for flare or fullness.

top and bottom furnish more length than those in front, A. If you are careful to have the horizontal lines at bottom of sleeve enter the side seam at right angles, the sleeve will not draw, B; also, the pointed effect in C is difficult to attach to a cuff. A and B are correct shape. D shows shaped facing.

If pleats are desired draw fold lines and stitching lines as an elevation on foundation pattern first, cut on the fold lines, then separate twice the width of pleat (distance between fold and stitching lines). Keep horizontal grain line horizontal. Draw and fold in the fold lines as planned, before cutting seams (Fig. 55 and Fig. 102).

A pleated, tucked, or shirred sleeve cap may be made by pleating, tucking, or shirring a piece of fabric on the grain, then covering with the

master pattern to cut out, as was done for blouse front (Figs. 53 and 102).

5. The vertical dart in a long sleeve is fairly wide. The space there can be left to hang free in a straight coatlike sleeve, or can be pleated or gathered into a cuff as in an ordinary shirtwaist sleeve. It may be used as space for designing details like scallops, tabs, and straps (Fig. 83).

Removing Ease in Sleeve Cap

The ease of 1"-2" in the top of the sleeve cap is the direct result of need for easy coverage of muscles in the upper arm. The sleeve should never appear stretched or close fitting over the flesh there. The more rounded the upper arm the more ease will be needed in the armhole. "Easing in" that fullness is difficult in glazed, firmly woven

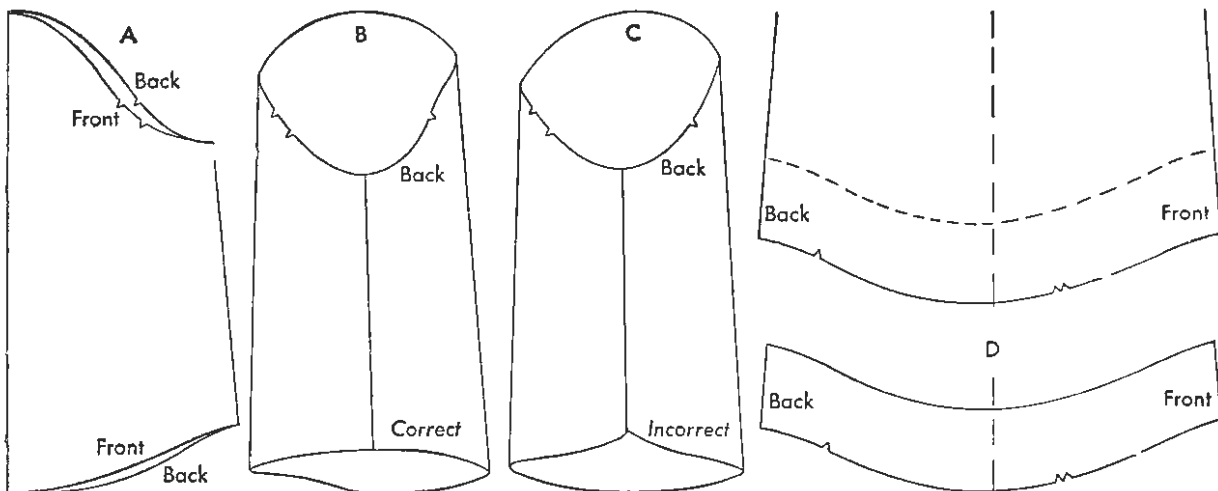


Fig. 101. Technique at lower part of sleeve.

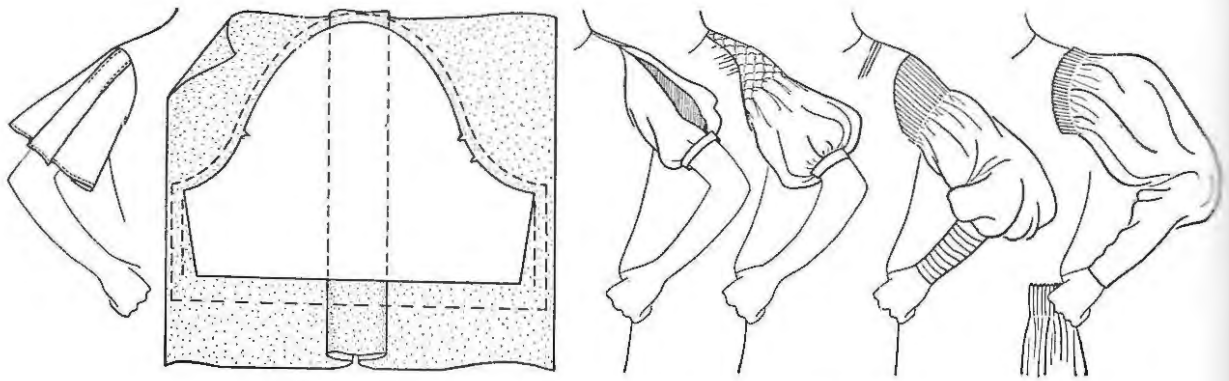


Fig. 102. Pleats in a sleeve. Details for confining fullness.

fabrics, but easy in spongy, loosely woven fabrics and wools that inherently want to shrink.

If in pattern designing we slash from the bottom to the top to spread for flare or other fullness across the upper arm, then there is no need for the extra amount to ease in (Fig. 100, A). Therefore, it is not only safe but better designing to overlap the slashed sections to remove some of the ease. But it must be done carefully and not overdone.

Measure above the notches both the armhole and the sleeve cap front; then the back separately. Leave $\frac{1}{4}$ " of ease on each half of the cap. Using a plastic ruler or a stiff tape standing on edge, measure the curves a little at a time. Repeat several times to check your accuracy as to the amount of ease on each half. Subtract $\frac{1}{4}$ " from each to learn exactly how much can be lapped out (Fig. 103). Whenever vertical slashes enter the sleeve cap, some of them may be overlapped to reduce the ease.

Use this procedure for the circular sleeve, the one with gathers at cuff but not at top, the cowl, the melon, the lantern, and the darted-top sleeves, and variations of the mannish shirt sleeve. Such a pattern gives a smoother, less homemade look and

speeds up sewing, thereby reducing factory costs. It is more casual in effect and most comfortable.

The important result, however, aside from the smoothness due to reduction of ease, is that the curve of the sleeve cap has changed so that the cap is now shorter. Because the cap is shorter, diagonal wrinkles result—we expect it, however, and accept it because it is less noticeable than the resulting softness and folds in the sleeve. Often these diagonal wrinkles are absorbed in other folds provided by the design.

Cutting a lengthwise seam in the sleeve to match the shoulder seam permits the designer to reduce the ease around the armhole by widening the silhouette over the fleshy part of the arm (Fig. 103). Coats have this seam curved out for extra roominess over snits. Several such lines may be accented with decorative stitching, cording, ruffles, fins, and so forth creating a semilanterm or barrel effect.

The Shirtwaist Sleeve

Copy the standard foundation sleeve pattern, with vertical dart thrown to the wrist. It is standard to have the placket on this line so make it slant from end of elbow dart or divide the bottom

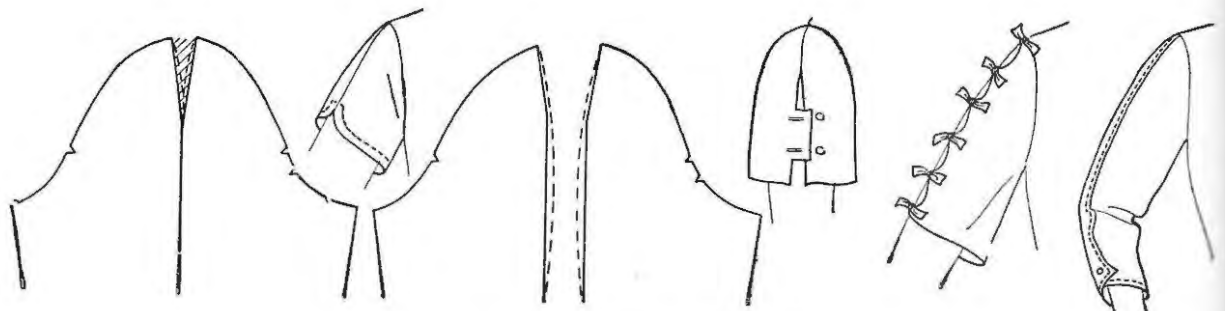


Fig. 103. Removing ease in sleeve cap.

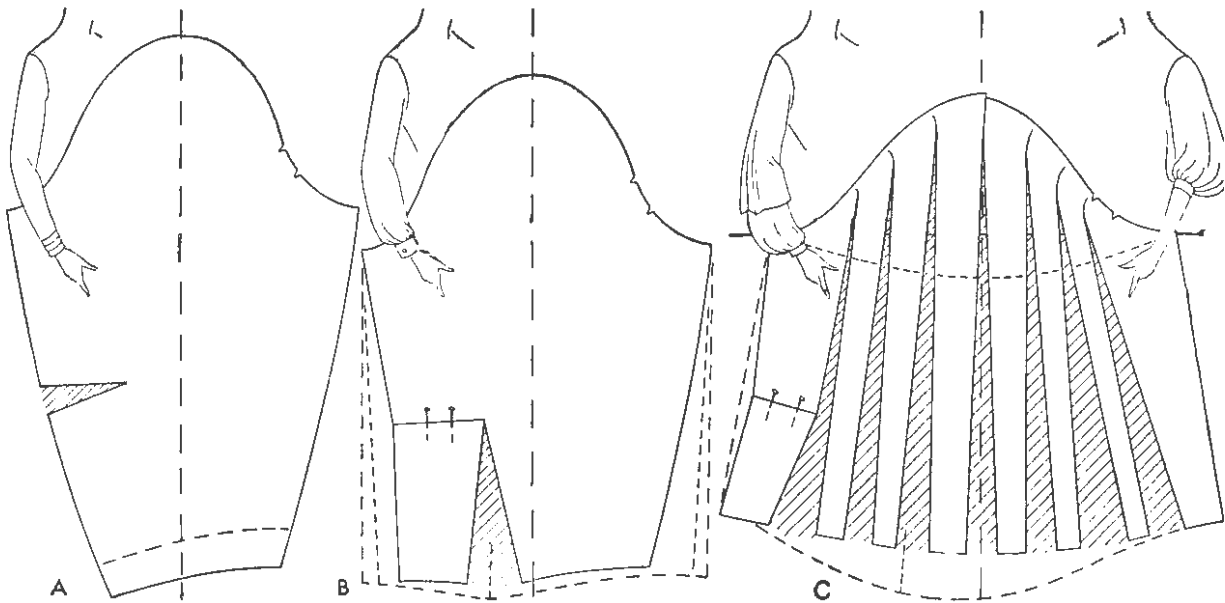


Fig. 104. Shirtwaist and long full sleeve.

of the sleeve with two thirds at front and one third at back to conform to silhouette lines normally following the thumb and little finger. An accented placket should be on the little finger side.

Cut 2"-3" off lower edge to be replaced by a straight band 2"-3" wide, or a French-cuff band 4"-6" wide, A (Fig. 104).

Draw vertical lines down from sleeve cap parallel with the grain line; or draw a slanting (small dotted) line instead of the vertical line, B. Be sure to make the lines slant on the same degree of bias. The width is often determined by half the width of fabric—as 18". If too much width is added at the side seam the flare and puff will be at the wrong place—underarm. Draw lower curve slightly deeper (Fig. 101). The top may be modified to the lowered armhole shirt type (p. 86).

Long Full Sleeve

Peasant, bishop, or bell sleeves are more casual and graceful if the fullness is obtained as for short puffed or circular sleeves, A (Fig. 100).

First cut to the desired length—three-quarter or full length, having crosswise dart pinned in or a vertical dart open. Mark the horizontal grain line. Slash on three to five lines that enter the sleeve cap line at right angles to it equally spaced, above the notches, C, (Fig. 104).

Spread the lower part for desired fullness, and lap out some of the ease at the top, but leave $\frac{1}{4}$ ".

Spread evenly; but more on the center line if a decorative shape is desired for the bell sleeve, A. Check the horizontal line and lower sleeve line to see that you spread front and back to match—the side seams will be bias and we want them alike; also, we want the sleeve cap balanced as to grain so it will droop on the figure as much at the front as at the back, C.

Added length at lower edge will provide more puffiness. Decorative extensions may be added.

Circular Puffed Sleeve

This type of sleeve is often called the lantern sleeve. It may be any length, flared slightly or very wide. There is a crosswise seam, which may be accented with decoration or cut into unusual shapes. It is cut circular to flare at the seam and to fit the armhole and cuff band without gathers (Fig. 105).

Begin with a sleeve pattern of the desired length, A. Draw the crosswise line where desired. Mark with notches, then separate. Draw radiating lines from the armhole and cuff line to make vertical slashes mostly on top of the sleeve. Slash from the horizontal seam to but not through the opposite side and spread into a semicircle to create fullness where desired, B. Spread the underarm slashes less than those on top of the arm.

Overlap at cuff line to fit a cuff band; overlap slightly to remove part of ease in what was the upper sleeve cap.

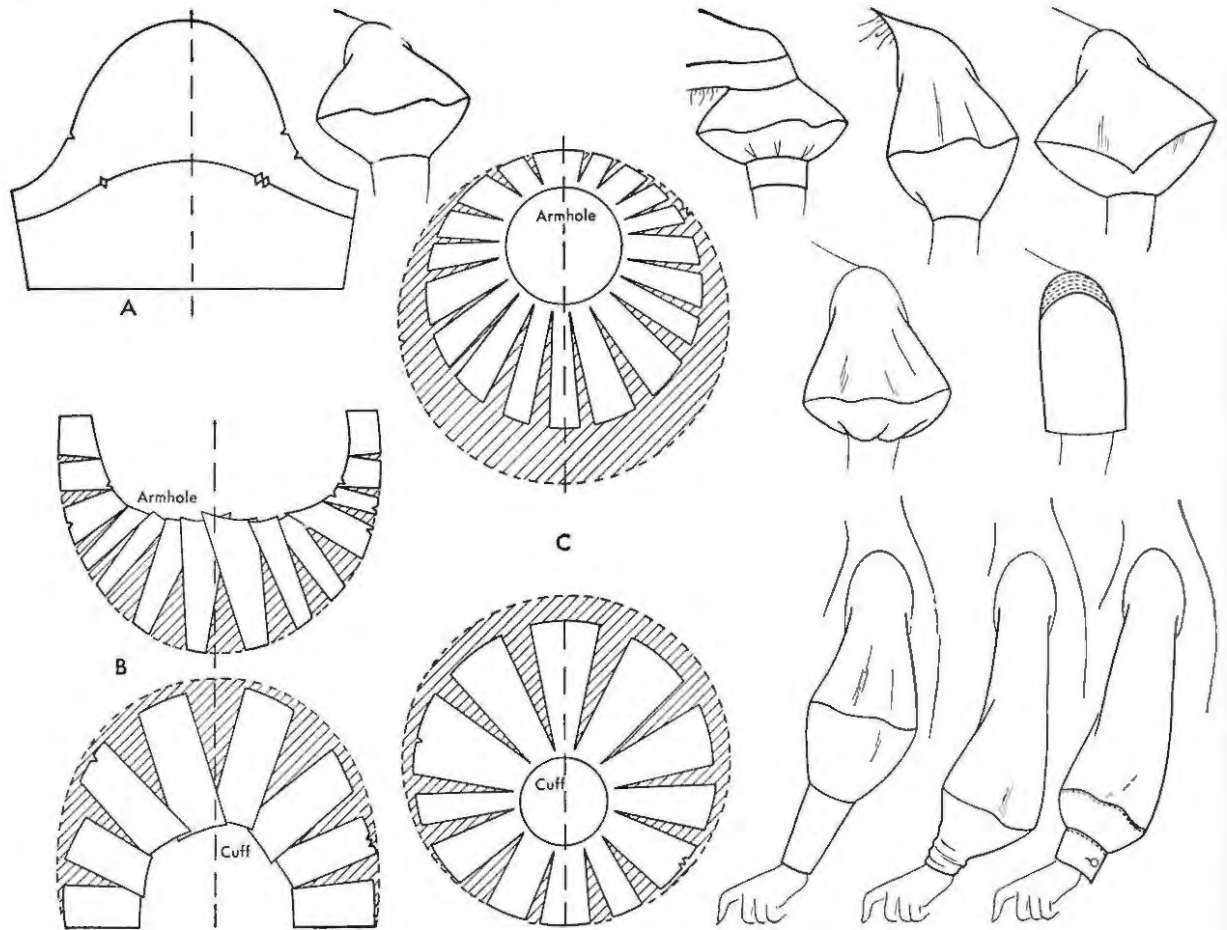


Fig. 105. Circular puffed sleeve.

Provide extra flare by extending the crosswise seams (dotted lines), B. Use the large circumference seam of the one part to make an exact copy on the large circumference seam of the other part. (The armhole and cuff line seams differ in shape and size.)

If a very full flare is desired make more slashes and bring the underarm seams together into a complete circle, C. The circles may be reshaped

in a muslin fitting, even into squares. Such a balloon or lantern sleeve is best developed in organdy, taffeta, or stiff silk. Cording, braid, stitching, or even wiring, on the circular seam will help to keep it distended. Less spreading gives an extended silhouette but is more practical for different occasions and materials. The matching shapes make it an easy sleeve to iron for children's dresses. A gingham sun dress was recently advertised with detachable organdy lantern sleeves.

Darted Top

The darted-top sleeve was in vogue in the 1930's, darts varying in length from 5" to 1". It was the forerunner of the shoulder pad era of the 1940's. The shorter darts create a neat square cap widening the shoulder silhouette only slightly (Fig. 97).

On a short sleeve, sketch three, four, or five dart lines and mark each the length desired. Slash on these lines to but not through the opposite side

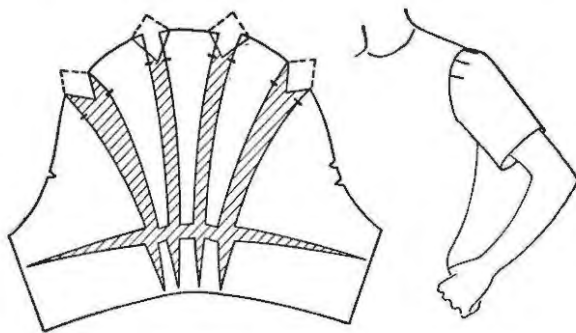


Fig. 106. Darted top sleeve.

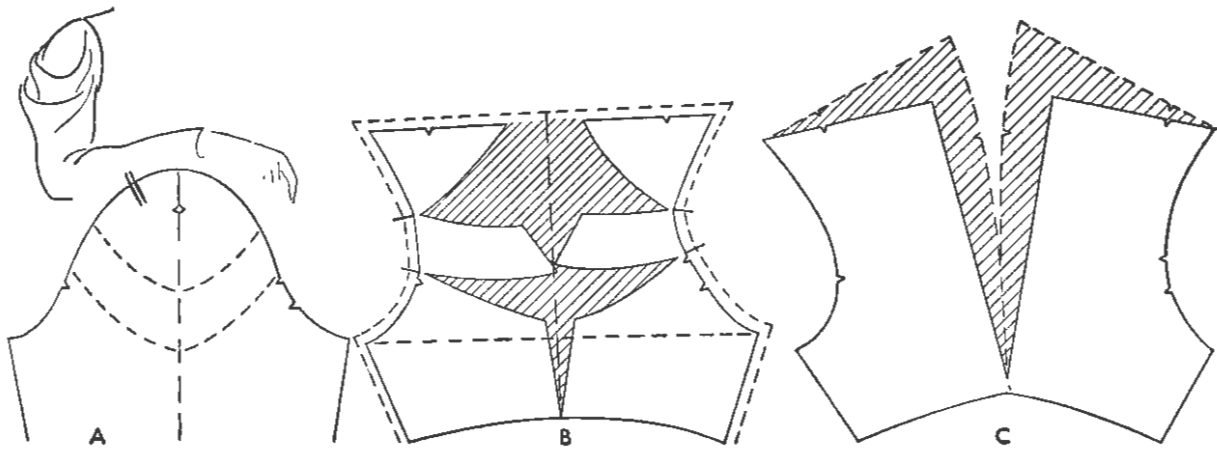


Fig. 107. Cowl drapery in sleeve.

of the pattern (lower hem line of sleeve) and spread apart (Fig. 106). Keep spread carefully on a fresh piece of paper while you make a crosswise slash from armhole notches (or above or below, depending on where you want drape to begin). This crosswise slash permits pulling the upper sleeve cap sections up so that added length is provided for the puffiness of the darted area—sometimes an inch, but several inches for a large puff. Measure on a model to decide on finished length of silhouette. Arrange sections so that the front and back are balanced with each other and arrange them as to the horizontal grain line so that side seams have the same bias. Spread the top slashes less than those at the sides; remove some armhole ease when drawing the new darts.

Draw in dart lines at a little less than right angles. The angles, of course, will be less than right angles if pleats are longer.

Fold in darts before cutting seams and seam allowances.

Because the spreads in both length and width are free decisions, a sample should be made in muslin to indicate whether you estimated too much or too little and to proportion it to the blouse or skirt.

Cowl Sleeve

The method of developing cowl drapery in a sleeve is the same as for a blouse front or yoke (Fig. 59). Begin with a short sleeve pattern (Fig. 107). Draw on it two or three straight or curved lines to follow the folds you want in cowl, A. Slash on these lines down the center of sleeve to hem. Do not spread at armhole line but do spread down

in the center where drape is to occur. The line across the top becomes a seam when sleeve is folded through the center; to it a weight is attached.

If this method has not created deep enough folds, cut the pattern in two lengthwise to widen and lengthen farther, C. Note similarity to blouse (Fig. 60). In this case a lengthwise seam the full length of the sleeve is recommended, whereas the only seam in B was concealed under the drapery at the top. If C is used, placing the lengthwise seams on the alternating bias gives a more graceful drape.

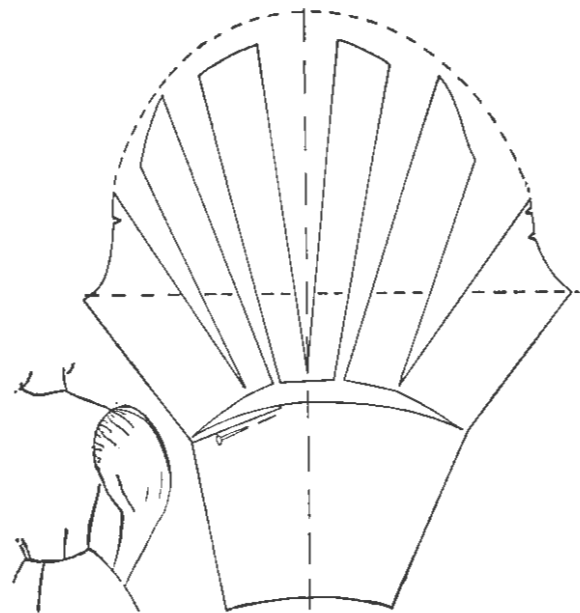


Fig. 108. Leg-o'-mutton sleeve.

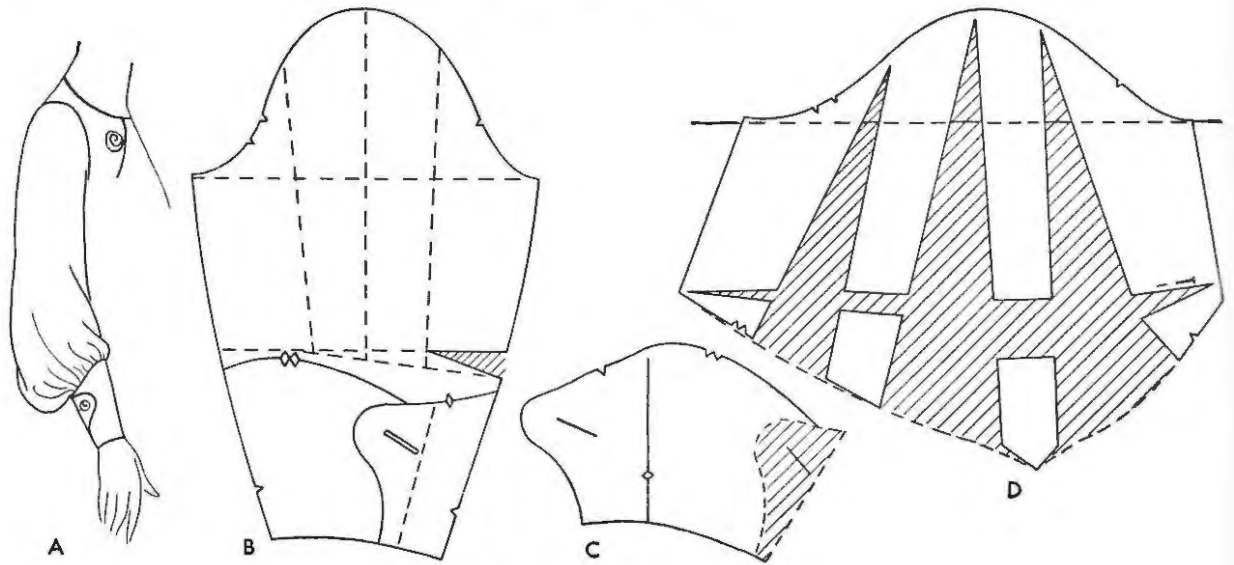


Fig. 109. Cutting a shaped cuff pattern.

The Leg-O'-Mutton Sleeve

The leg-o'-mutton sleeve, puffed at the top but slender from elbow down is a style that frequently returns to the fashion scene. For certain dress-up occasions it always has a place, if nowhere else, on the stage.

When using a one-piece sleeve pattern, pin in the elbow dart to produce a bulge (Fig. 108). Decide where gathers or pleats are to fall in the sleeve cap. Slash vertically several places between these points ending one slash at elbow dart so that the pattern flattens out on the table. If this does not give enough width in the top, slash horizontally from the center of the sleeve over to the seam across the elbow. Additional puffiness may be obtained by heightening the curve at the top of the sleeve cap, free-hand. Keep the lengthwise sleeve seams the same length as in the original pattern.

For coats, a two-piece sleeve pattern is usually used, A (Fig. 116). Place the pieces so they join from elbow to wrist along the back seams but spread apart above the elbow to provide width. Connect the upper sections with a gradual curve above the original sleeve cap line, providing the length needed for puffing.

Sleeve with Shaped Cuff

The full length or three-quarter sleeve with a shaped cuff is easily developed from preceding

principles. Only the cuff may be new. It is quite important that the foundation pattern be well fitted below the elbow (p. 24 and Fig. 22).

Pin in the basic elbow dart. Draw the shape of the cuff free-hand, keeping it slightly circular to conform to the arm and wrist, A (Fig. 109). Designs that appear angular or straight should be slightly curved. Mark notches for later reassembling.

Cut placket line first—at little finger line—then slash on up to bulge of elbow dart. Cut off the cuff, now in two pieces, C. Rearrange the cuff pieces so that they are joined as one on the thumb seam line, open at the dart or little finger placket line.

The cuff needs an overlap and an underlap, C; also see blouse front in Figure 72, if buttonholes are required. If small buttons are used, the overlap need not be more than $\frac{1}{2}$ " wide; if loops are used, $\frac{1}{4}$ "– $\frac{1}{2}$ " width is sufficient. The lengthwise grain should center on top of the hand. The cuff is better lined, cut double, stitched to leave top open, turned, and applied like a band after sleeve placket is completed.

The upper section of the sleeve may be slashed to provide gathers where indicated by notches, D. The basic dart is included in the spread between slashes. To provide length for puffiness, slash the pattern crosswise near elbow and pull the pieces down in graduated formation. Using this method instead of drawing free-hand at the lower edge will insure a better line there and one that

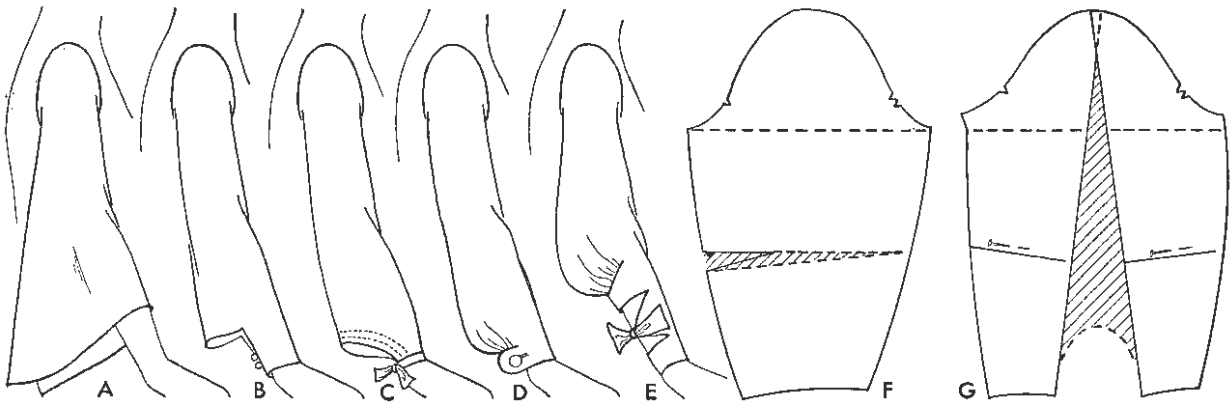


Fig. 110. Designing in space from basic dart.

is certain to fit the cuff where there are irregular shapes like points.

Mark a short 1" placket at the original little finger mark.

Designing in Space from Basic Dart

Long flowing and bell-shaped sleeves inspired by such shaped sleeves of the Zouave jackets, Don Carlos mantillas, and doublets of sixteenth and seventeenth centuries, the alba and dalmatica of the eleventh century, and the sack sleeve of the fifteenth century * attract and invite us to design romantic and dramatic negligees and hostess gowns. They will look better if developed like B (Fig. 104) with one middle or three slashes so that flare is on top of the arm not under the arm as it would be if we used A (Fig. 104). Such designs as A, B, and C (Fig. 110) provide ventilation as well as a graceful silhouette.

* Kohler, Carl, *A History of Costumes* (New York: G. Howard Watt, 1933).

Begin with a standard sleeve pattern, F. If you prefer the decorative detail a little more on top of the hand, extend elbow dart clear across the sleeve, F, then slash the middle fold of the sleeve pattern up to but not through the top, G. Lap slightly at the top to remove some of the ease. Spread this one slash to provide whatever width you need at the bottom. Sketch in shapes like C (dotted lines) or add flare or points as in A.

Horizontal Fullness

The mousquetaire effect in sleeves (or gloves) refers to the horizontally draped folds. Some of the Chinese mandarin robes have very, very long sleeves to be worn wrinkled around the arm. In recent years we have had the push-up style, merely long sleeves tight enough to stay draped when pushed up. Really draped sleeves require a sheer lining underneath to hold them in place or a taped seam. Figure 111 illustrates the principle of slashing where you want folds, and spreading the amount you want.

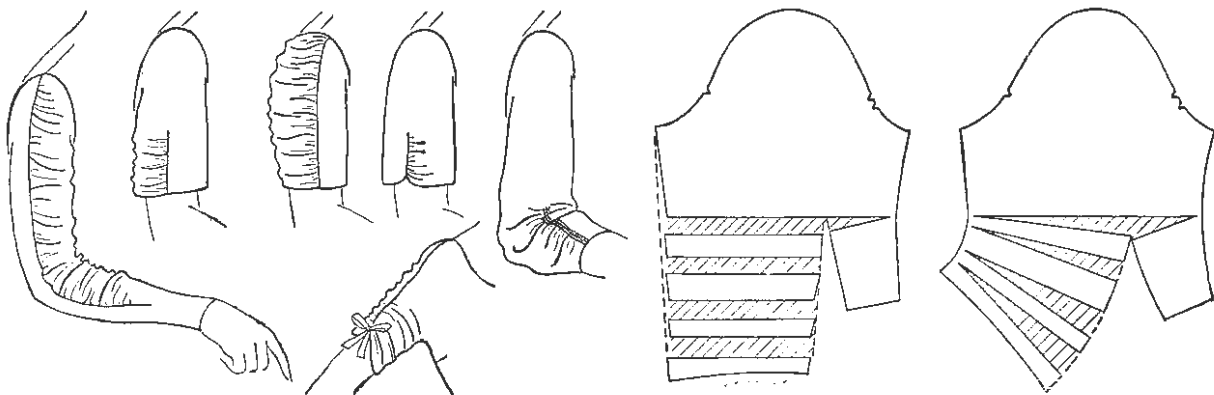


Fig. 111. Horizontal fullness.

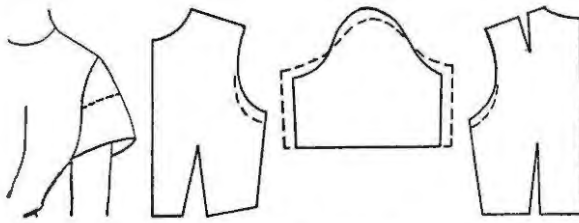


Fig. 112. Deep armhole.

Careful estimates of the draping power of your fabric are required. Otherwise these styles will be either too bulky or disappointingly skimpy.

Deep Armhole (Shirt Sleeve)

The shirt-sleeve blouse pattern with a deeper armhole is developed from the standard blouse and sleeve patterns to provide greater freedom of movement and less difficulty in construction. It is soft and casual in effect and use. It may be long or short. The short, general-purpose style is illustrated here but it may be combined with the shirt-waist sleeve, B (Fig. 104).

This new pattern is a good block pattern to use in developing raglan, kimono, and dolman patterns.

1. On foundation front and back patterns lower armscye 1", A (Fig. 112). If more ease is needed for a sport shirt, slash and spread for a blade or provide fullness otherwise in design.

2. On sleeve widen each side $\frac{3}{4}$ "-1" and raise underarm curve 1". Thus while armhole has been lowered, the underarm seam of the sleeve has been raised. The longer the underarm sleeve seam, the more reach can be obtained without pulling blouse out of waistline position—this reach is now on the sleeve.

3. Measure new armscye on front and back blouse patterns with a plastic ruler or stiff tape and compare with sleeve measurements.

4. Redraw top of sleeve cap; if necessary, lower it to correspond to measurements just taken, leaving a slight amount of ease. The standard set-in sleeve normally has $1\frac{1}{2}$ "-2" of ease, but in this type $\frac{3}{4}$ "-1" is sufficient because of the extra width provided in the sleeve cap area. Watch to keep the back curve higher than the front. Adjust notches.

5. Cut in muslin and fit to see if it is comfortable and has sufficient ease. Note that cross-wise grain cannot be horizontal when sleeve is on the arm, but it should droop to balance front

and back. Baggy folds will show underarm, but it is comfortable and easy to sew in and launder.

Two-Piece Sleeve

The modern one-piece sleeve is easier for average people to construct and "set," but the seam starting at center underarm pit twists slightly toward the thumb. The older version of a one-piece sleeve had the seam at the front from thumb to tendon that holds the arm muscle to the body. It did not match the blouse seam underarm and was confusing to set, so that it is seldom used today.

However, in coats and jackets a two-piece sleeve with the two seams harmoniously following the silhouette of the arm where it rests against the body sets comfortably and smoothly without a wrinkle. It can be used more effectively than a one-piece pattern in complicated decorative and leg-o'-mutton types. The lengthwise seams may or may not meet the French-dart seams of the jacket. To make the pattern for a two-piece sleeve proceed as in Figure 113.

1. Redraw the elbow dart from the back seam by extending it completely over to the front seam, A. Fold and pin several places to keep secure.

2. Fold the side seams so that they meet on the center lengthwise grain line, B. Tape together.

3. Draw two new seam lines where they will lie just under the arm silhouette, about halfway between the fold and the seam but closer to the fold than to the seam. Another estimate is to make the under sleeve one third and the over sleeve two thirds of the total girth at any point. Notch for ease in distinguishing parts. Cut on the two new seam lines and separate, C.

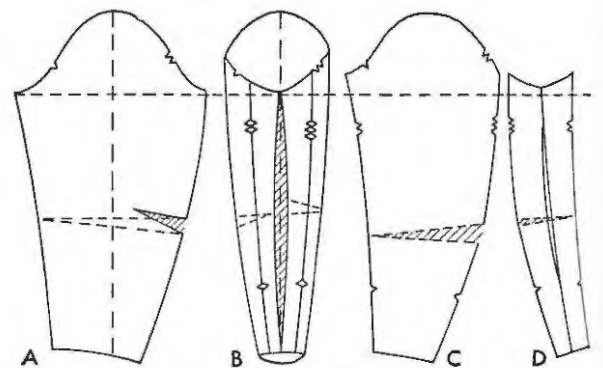


Fig. 113. Two-piece sleeve pattern.

4. The upper section of the sleeves should have the elbow dart unfolded to restore original sleeve length over elbow, C.

5. The under section is made by combining the two narrow strips (taped together and) removed in Step 3. Keep the crosswise grain at base of sleeve cap intact throughout. Establish lengthwise grain perpendicular to it. Unpin the elbow dart

at the back of the under section and spread it $\frac{1}{4}$ "– $\frac{3}{8}$ ", D.

In making this sleeve, the upper section should be eased over the elbow to fit the under section for 2" or 3" in the dart area.

6. Smooth and slightly curve the vertical seams. Cut in muslin, fit, and adjust pattern.

Chapter II

BODICE AND SLEEVE COMBINED

The foundation one-piece sleeve, if well fitted, is neat and reduces the silhouette to a minimum. The armhole acts as a hinge in action. However, to some people it is constrictive especially if full length. In modern life, short sleeves and loose flowing sleeves are more comfortable. Sleeves cut in one with the bodice are generally roomy and easy to make without appearing so homemade. Time, cost, and skill in dressmaking may often be more effectively spent in techniques of tailoring, decorating, or selecting handsome fabrics than in setting a sleeve with perfection.

Hence, a bodice cut in one with the sleeves may lead to more originality and satisfaction in the finished product. Designers in shops find such patterns a "must." However, it is not necessary for the average home sewer to learn to make raglan and kimono blouse patterns, although the knowledge will enable her to design more freely. More garments for children should be cut on raglan lines, but kimono sleeves usually cannot stand the strain. It is easy to adapt commercial patterns with standard sleeves into these styles.

Most of them need more ease in one area or another than in the standard sloper, both for comfort and durability. The three-quarter push-up styles relieve tension. If the blouse is very voluminous or baggy, plan a narrow straight-line skirt for it. If a long tight-fitting sleeve is desired, plan more drape under the arm or elsewhere in the blouse. If the blouse or sleeve sections are fairly puffy, keep the collar and cuffs trim and narrow, unless you are very slender.

Whether you buy a commercial pattern or develop one yourself in raglan, kimono, or dolman

styles use the corrected pattern as you would a foundation pattern and apply to it the same principles and techniques as used in regular blouse and sleeve designing. Because you have already learned how, on these new slopers you can:

1. Move the basic dart by swinging it around the pivot point of the bulge. (Fold in original dart, slash on a new line to point of the bulge, spread.) The new dart may be up, down, across, or slanting.
2. Divide it into several smaller nearby darts.
3. Introduce added fullness for decoration as darts, tucks, pleats, gathers, circularity, and folds.
4. Cut new division lines, as panels and yokes.
5. Add extensions to both basic and style lines to affect silhouette.
6. Conceal the basic dart in both decorative darts and seam lines.
7. Use the dart space for gathers, shirring, or decorative shapes.
8. Retain part of original dart where located and swing remainder elsewhere for ease or decoration.
9. Leave remnants of dart where desired for "easing in" instead of for gathered fullness.

Modified Armhole for Sleeveless Styles

In a sleeveless bodice (Fig. 114) the armhole may need raising; in others it may be reshaped into a curve, square, or point, A. Usually a slight extension of the shoulder into a cap shape gives a more finished, less naked look, B.

Use the standard foundation blouse pattern. Draw an extension of the shoulder seam. A short

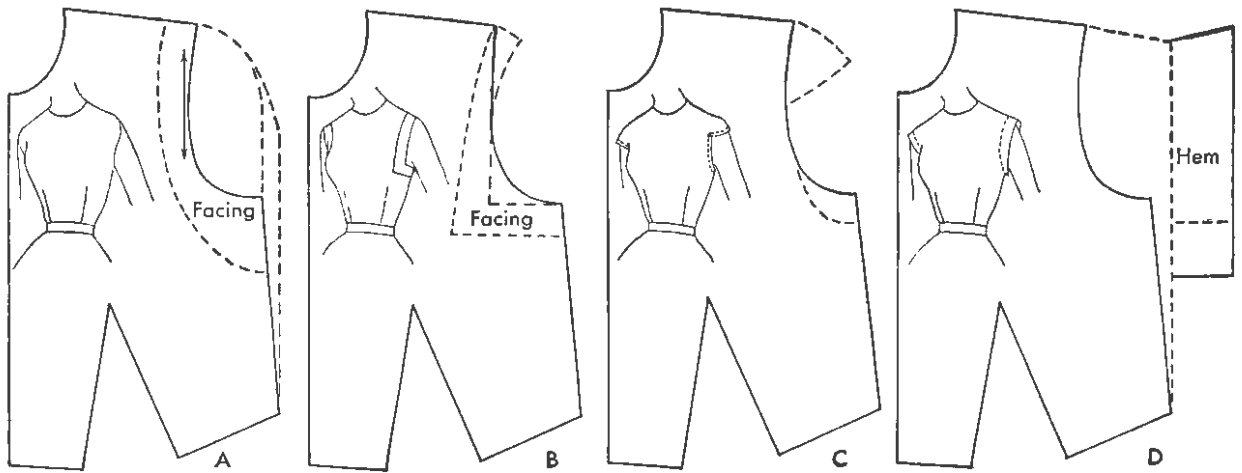


Fig. 114. Modified armholes for sleeveless blouses.

1" or 2" extension, curved, can be connected with the underarm seam. Cut front and back alike. Shaped facings should be cut after a fitting.

If the extension is shaped on straight lines, D, a hem can be provided instead of a facing.

If the extension is as much as 4" or 5" and cap shaped to fit the upper arm, the armhole may be too tight, in which case it should be lowered, C.

The Extended or Dropped Shoulder

The extended or dropped shoulder line is usually (but not necessarily) a part of a yoke design, thereby providing means for extra fullness to offset the chance of drawing when the normal armscye line is so drastically changed (Fig. 115). The pattern is developed in the same manner as a raglan.

1. Sketch the shape of the yoke extension first on the sleeve and then on the front and back of the blouse pattern, in such a manner that it makes

a smooth-flowing, continuous line. Mark notches on the lines, A.

2. Cut apart on the lines drawn. Slash the top section of the sleeve on the lengthwise grain line that matches the shoulder seam of the blouse, B.

3. Attach the front half of this upper sleeve section to the front of yoke so that the sleeve cap fits the armscye. Slash from the top of the sleeve cap to but not through the opposite side. Lap the slashes until the cap fits the armscye seam of the yoke, C. The yoke lines should now be continuous and the shoulder seam continuous. Arrange the backs similarly. This will produce a shoulder seam which curves down over the shoulder.

4. The lower blouse and sleeve sections are generally most effective when gathered, shirred, tucked, smocked, or pleated to produce fullness below the yoke line. Simply slash these sections wherever fullness is indicated by the design, being careful to keep horizontal grains aligned, to estimate the correct amount of fullness each texture

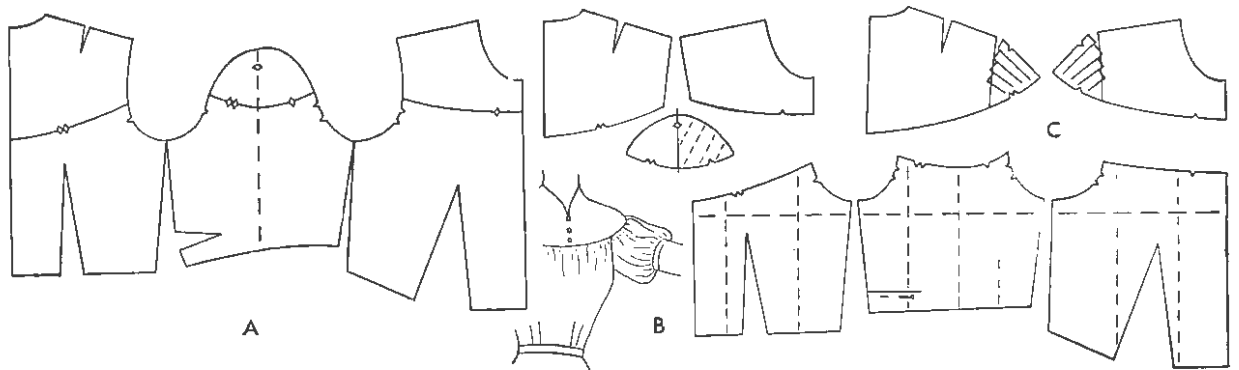


Fig. 115. Extended or dropped shoulder.

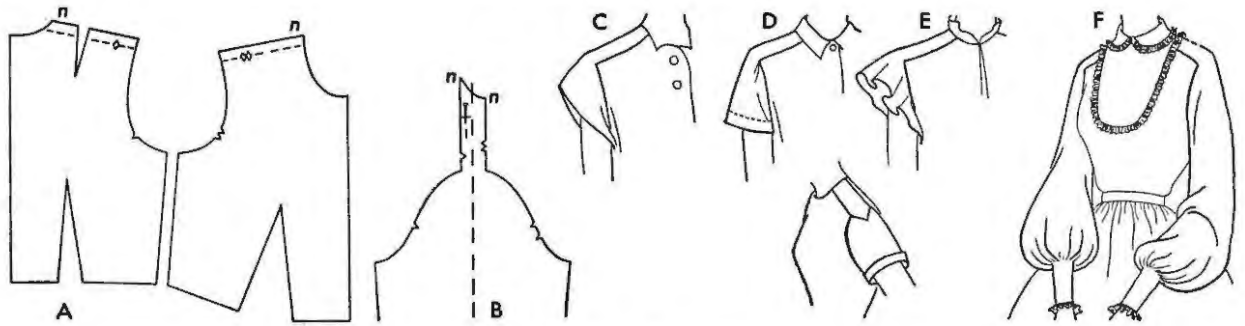


Fig. 116. Epaulet sleeves.

requires, and to form transitional lines in reshaping seam lines.

Epaulet Sleeves

The epaulet sleeve is a tailored, semimilitary, or casual style, hence does not need to be developed from the standard foundation pattern; instead use the shirt sleeve with most of the ease removed and a lowered armhole to provide the comfort desired (Fig. 112).

1. Begin with blouse front and back patterns with darts located in some other direction than the shoulder seam (Fig. 116). A short sleeve is used here to which the lower portion may be added later if desired.

2. Draw lines to form the epaulet or strap feature $\frac{1}{2}$ "–1" wide along the shoulder of both front and back, A. The strip may be cut the exact width of some decorative banding already on hand, such as peasant embroidery, a knitted strip, lace, or insertion. If the strip is too wide, it will not fit so well at the sleeve cap, and will tend to meet at the center back of the neck at a point which is not very attractive or easy to tailor. Very wide or curved effects are really raglan in style and should be so cut.

Mark notches; label neck end of each strip, *n*, and cut apart. (See Fig. 69.)

3. Outline the short sleeve pattern on a large piece of paper, B. Draw in and extend the lengthwise line marking shoulder seam contact point. Arrange the strips so that their shoulder seams meet on this line. Check to see that the front strip joins the front of the blouse and the back strip the back. The arm end of the strips should just touch the top of the sleeve cap and the ends marked *n* should make a short continuous curve as a small section of the neckline.

4. Complete pattern by creating stylized fullness especially if the sleeve is long. You will recall

that the lowered armhole shirt sleeve will have drooping grain and folds toward the underarm but it is comfortable.

5. If in the beginning you started with standard blouse and sleeve patterns, there would be an accumulation of ease between the strap and the armhole notches. Some designers collect this extra ease at the corner of the strap in a little pleat, D, or increase its width by slashing and spreading the desired amount.

6. During construction stay-stitch the seam lines before slashing corners. For simplicity of tailoring, do not close underarm seams until the strap and armhole seams are complete. Make the plain armhole seam first, then top stitch the strap over the blouse. If top stitching is desired for the armhole too, begin with seam along strap lapped over the body, but at corner reverse by lapping the body over the sleeve. (Dressmaking principle requires a smooth lap over fullness.)

KIMONO BLOUSES

Semifitted Kimono Blouse

1. Copy basic blouse pattern (Fig. 117).
 - a. Use front with basic dart at waistline; back with shoulder dart left in to be used as ease or shifted to back of neck for simplicity of construction; sleeve with elbow dart extended to center lengthwise line and folded in, A.
 - b. Lower armholes of blouse front and back 1", *x*. Raise lower curve of armhole 1", *y*, because a high underarm sleeve makes it easier to raise the arm in comfort and without danger of tearing out. (Same procedure as deep armhole, Fig. 112.)
 - c. Cut sleeve pattern lengthwise through center. The elbow dart may be unpinned now or later.

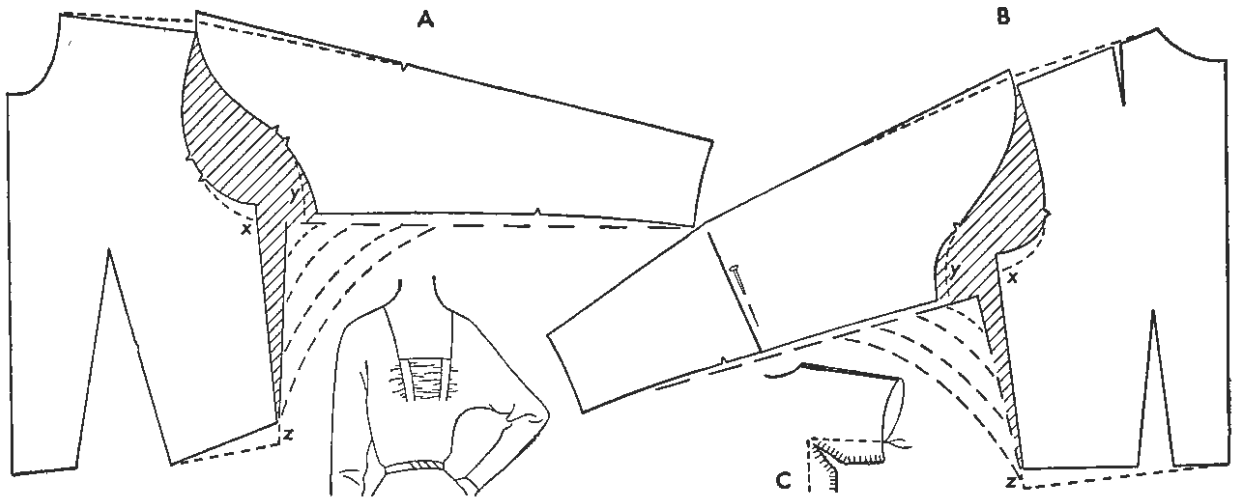


Fig. 117. Kimono blouse—semifitted.

2. Arrange front sleeve section so that center lengthwise line becomes an extension of shoulder seam and so that the two pieces do not overlap, A. A space between x and y of 1" to 2" makes for some drape; if the lengthwise center of sleeve is lifted up higher (more horizontal or less sloping), the space becomes greater and the drape greater. At the top, slip the sleeve cap about ½" above the shoulder seam of blouse (not necessary if shirt sleeve pattern is used).
3. Arrange back pieces in the same manner as for front, except that the sleeve may be lifted an inch above the back shoulder seam to give greater back length, B. Also, the space x to y could be greater than in the front with some easing in dressmaking at the underarm.
4. Make an angle between x and y. If on your master pattern x is higher than y, change waistline at z to compensate.
5. Convert angle to transitional curve as low as your design idea demands. The lower one is generally called the wing or bat sleeve.
6. Draw a transitional line from neck to wrist to raise end of shoulder seam slightly and to remove excess extension of sleeve.
7. Make a muslin copy with 1" seams at underarm and shoulder line and ½" seams at neck and wrist. Fit to the person. The underarm curve may need slashing and reinforcing. The shoulder seam may need to be let out or to be curved more. The sleeve may be too long, especially on the more baggy cut. If the blouse is too baggy, pin a dart at xy tapering off at end

- of shoulder, on both front and back patterns.
8. Copy for use as a kimono block pattern in designing loose dolman and raglan styles.
9. The square corner at the underarm in this type of pattern is inclined to tear out easily, as is also the rather sudden curve drawn in as a transitional line there. The corner or curve must be slashed to prevent its puckering or drawing when turned to the right side. These slashes also tear out easily and ravel. A neat finish consists of buttonholing neatly and closely not only the seam but also the edges of the slashes, with extra close stitches at the weakest corner, C. Double stitching a curved underarm seam helps, as does stitching a narrow piece of tape or 1" bias strip on each side of the slashed seam. After fitting, or after one has torn out in wearing, a slash and gusset may be made as in Figure 118.

Fitted Kimono Blouse

1. Copy basic blouse pattern (Fig. 118).
 - a. Use front with basic dart at waistline, back with shoulder dart left in to be eased or shifted to back of neck for simplicity of construction; sleeve with elbow dart extended to center lengthwise line and folded in.
 - b. Lower armholes of blouse front and back 1", x. Raise lower armhole of sleeve 1", y, because a high underarm sleeve seam makes it easier to raise the arm in comfort and without danger of tearing out (same as deep armhole, Fig. 112).
 - c. Cut sleeve pattern lengthwise through cer-

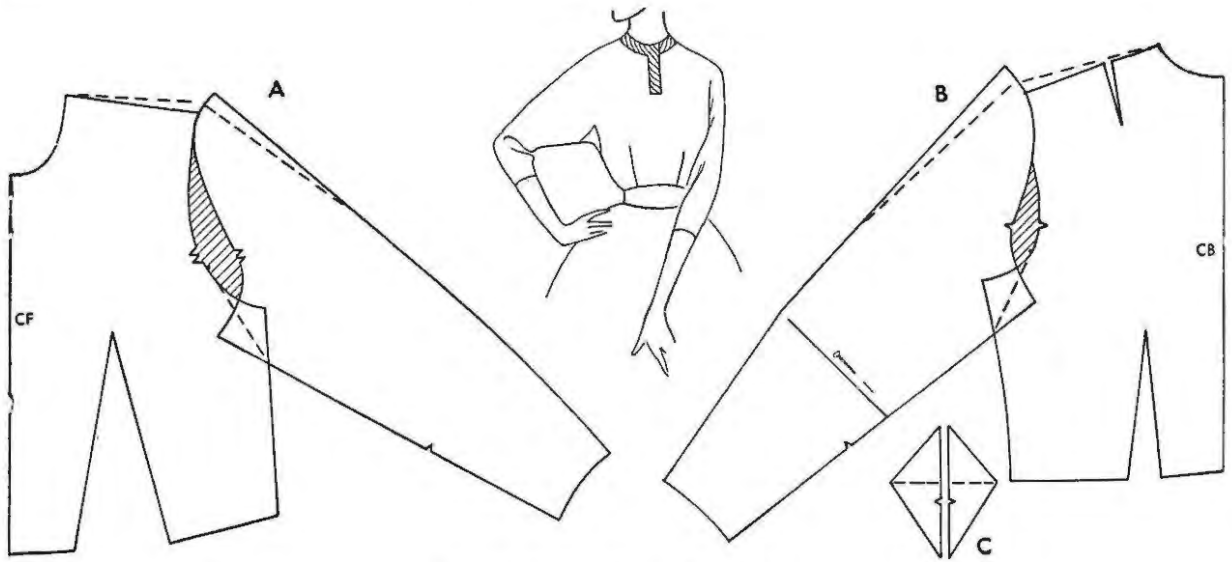


Fig. 118. Kimono blouse—fitted style.

- ter. The elbow dart may be unpinned now or later.
2. Arrange front sleeve section to meet armhole of front, A.
 - a. Pleat (or slash and lap) sleeve pattern to fit armhole as much as possible, allowing top of sleeve to extend about $\frac{1}{2}$ " above shoulder seam of bodice section. Basic notches should be opposite each other.
 3. Note that sleeve overlaps blouse at underarm. Cut a gusset (diamond shaped) about 4" wide and 5" long to act as an inconspicuous hinge, C. Draw a line for a slash in the pattern to end on normal armhole line, the same length as one side of the gusset—about $3\frac{1}{2}$ " long. (Or you may cut the slash, then a gusset to fit.) Cut diamond in two to make two long triangles—the lengthwise center to be on true bias.
 4. Arrange back sleeve section on back blouse as in Step 2, so that underarm seams of bodice front and bodice back are the same length and so that shoulder angles are about the same.
 5. Draw transitional line from neck to wrist to raise end of shoulder seam slightly and remove excess extension of sleeve.
 6. Unpin and retain elbow dart.
 7. Cut sample in muslin with 1" underarm and shoulder seams, $\frac{1}{2}$ " seams on gusset, neck, and wrist. Fitting may reveal need for changing location of gusset slash and length of sleeve. Correct pattern and copy to use as a foundation pattern in developing varied designs.

8. Without the gusset the wearer could not lift her arms very far, but with the gusset strain is relieved. This method produces a style less bulky than Figure 117, is neat and quite wearable in larger sizes.

To set in a gusset, stay-stitch before slashing fabric $\frac{1}{4}$ " seam at open end to nothing at end of slash. Have gusset cut in two pieces and set in front and back before making underarm seam: place right side of gusset to right side of blouse and stitch with $\frac{1}{2}$ " seam allowance on the gusset but tapering to almost nothing on the garment. Avoid too narrow a point. This means sewing with the garment side up and pivoting at end of slash. Then right side out, top stitch on the garment (not the gusset) close to the fold. After each half of sleeve has a gusset, join underarm seam.

Kimono Block Used in Other Ways

1. The two pieces of the kimono block pattern may be joined along the arm to make one piece with a dart for the shoulder seam, A (Fig. 119). If the back is placed on a fold the front will be bias or vice versa, which may or may not be desirable. Stripes are effectively used with center front seam on a true bias to form a chevron effect. Most fabrics are not wide enough to cut the entire blouse in one piece. In general it is better to cut both the front and back on lengthwise grain with the seam along arm and shoulder on the bias as in the original block. Sometimes a panel or strip cut on the straight can be used to

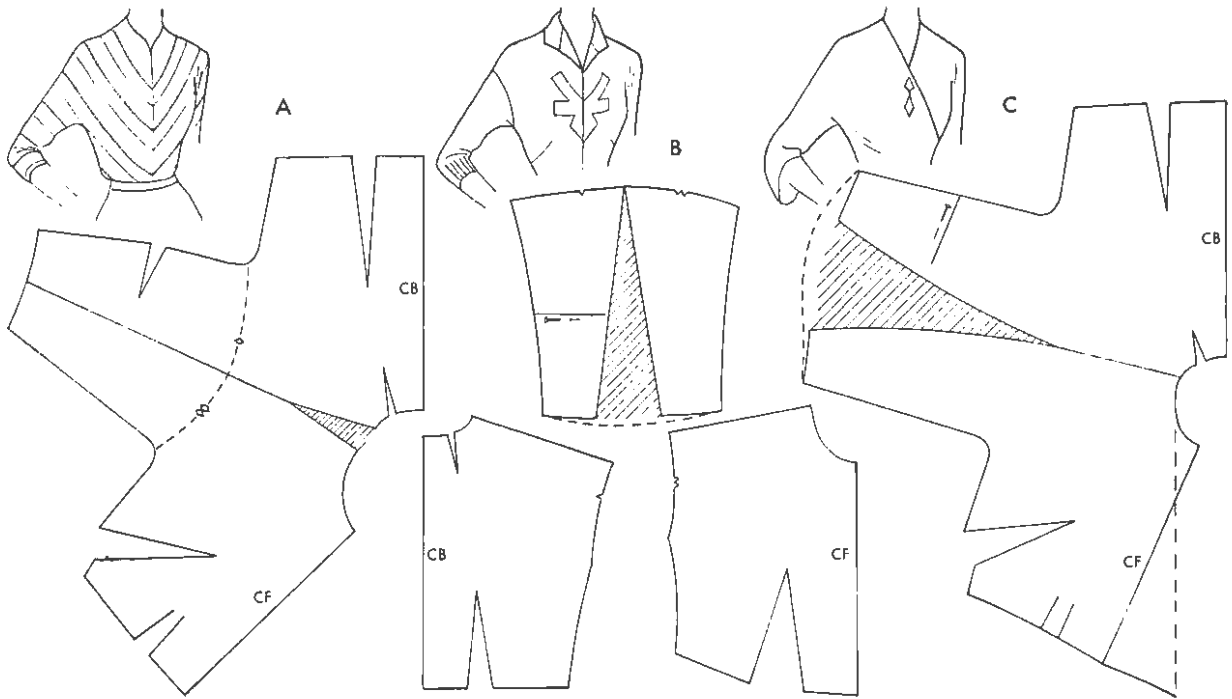


Fig. 119. Use of kimono block—pivoting the shoulder dart.

break the bias effect and to prevent stretching.

2. A drop-shoulder effect obtained by cutting a horizontal, slightly curved line at upper arm (dotted line, A) enables the designer to cut lower sleeve on lengthwise grain and the blouse in two sections, B. This style makes for economical placement. It is popular in the Navajo squaw or fiesta shirts and gives a good line for decoration.

3. If the front and back are joined as one at the shoulder seam, the basic shoulder dart falls into the lower sleeve, C, providing fullness at the cuff line.

4. In C, also, the designer has placed CB on the fold, and made a surplice line for the front to be cut also on the grain. Seldom is fabric wide enough for such a placement, so a seam or hem will be necessary at CB, or a shoulder seam must be made, or short sleeves or a drop-shoulder style.

5. The lower sleeve section may be converted into any type of sleeve design desired, or if you already have such a sleeve pattern, pin the base of the new sleeve cap to the base of the old one, keeping the fronts matched and grain lines balanced.

6. Use the kimono block pattern for developing yoke styles (an aid in fabric placement). Use it for loose dolman and raglan effect (Fig. 120).

BLOUSE WITH DOLMAN SLEEVES

Dolman sleeves, sometimes referred to as web, bat, de Medici, or Vionnet sleeves, developed in soft materials suggest a dressy quality and frequently form the foundation lines for luxurious furs and evening wraps, also for casual suit jackets and dresses.

The loose type of dolman sleeve may be made by using a kimono block pattern (Fig. 120). On it sketch in the shape of the new armhole, A, mark notches and grain lines, and throw the basic dart wherever required. Separate the sections. The underarm seams may be changed to alter the baggy effect.

For a standard dolman sleeve pattern (Fig. 121):

1. Use standard foundation blouse pattern or the modified deep armhole pattern (Fig. 112).

2. The fundamental darts may be shifted to coincide with or terminate on the new style lines or left in the bodice section for later development.

3. Sketch in the desired new armhole shape so that front and back sections match at shoulder and underarm. A. Remember that you are designing in the round not on a flat figure, so check

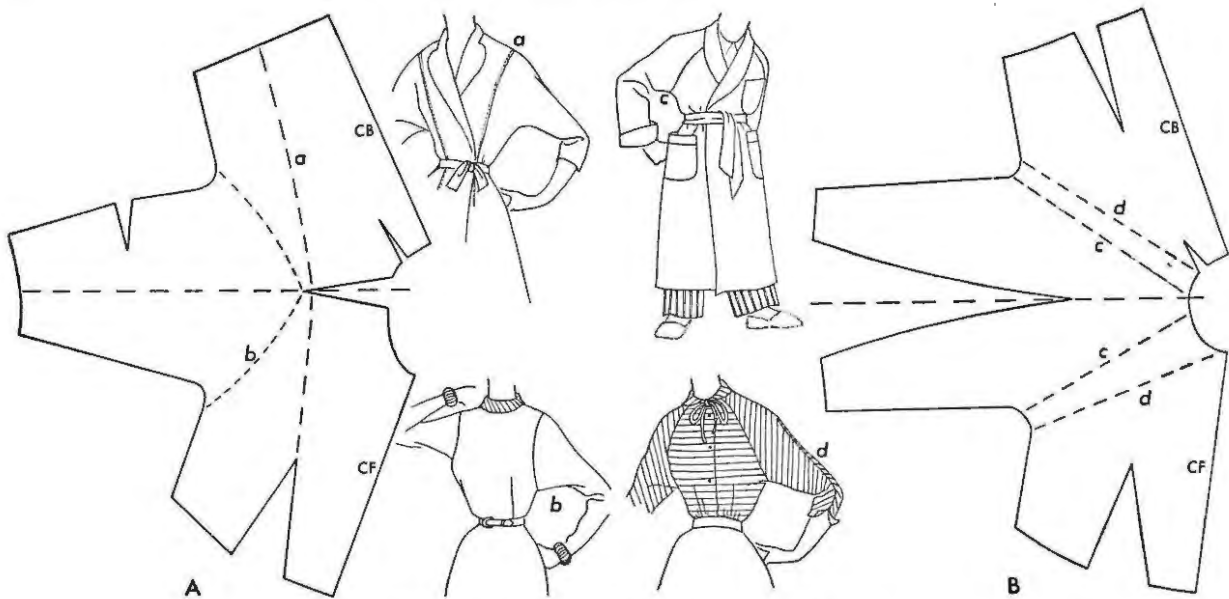


Fig. 120. Kimono block used for dolman and raglan cuts.

shape on model. Mark notches and cut along the new armhole lines.

4. Place the armhole sections in proper relationship to the foundation sleeve pattern with shoulder seams touching or slightly spread to make a narrow short dart, notches paired and underarm seams touching at corners, B. From the armscye edges slash at right angles to but not through the opposite sides. Spread slashes until corners meet but do not distort edges. One slash ending on a deep curve or square corner gives a looser more draped result; many slashes carefully arranged reduce the gap between sleeve and dolman section making a closer fitting pattern.

5. For the underarm seam make a curved transitional line rather than follow the pattern lines. This line determines the amount of folds or bagginess in the design. Make the front and back the

same for the loose effects; but if making a closer fitting type, swing the back slightly wider. The lower part of the sleeve may be tight or full as you wish, as in Chapter 10, but generally slender. The blouse section is cut on grain as for any other blouse. The sleeve is usually cut in one piece with center lengthwise on grain.

BLOUSE WITH RAGLAN SLEEVES

Loose Fitting Raglan

Use this style for casual clothes and children's simple garments, B (Fig. 120). Begin with a kimono block pattern. Use a ruler to draw a slanting line from neck to corner at lower armhole. On this line sketch a shallow compound curve, above the line in the upper half and below the

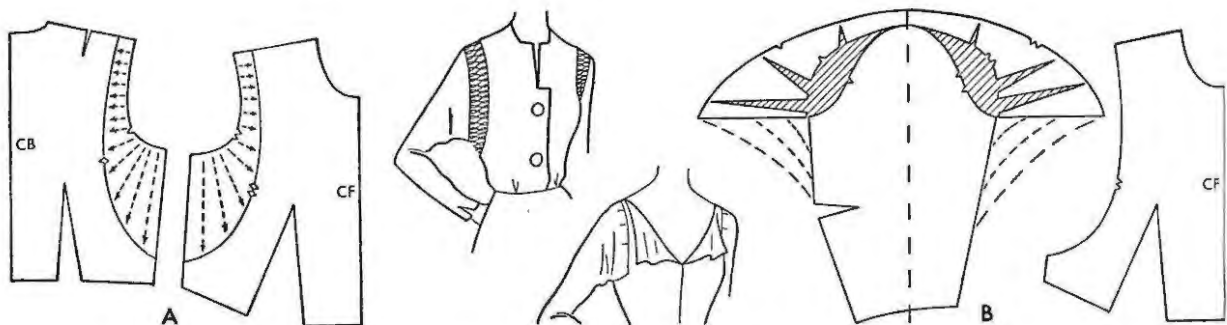


Fig. 121. Standard dolman sleeve.

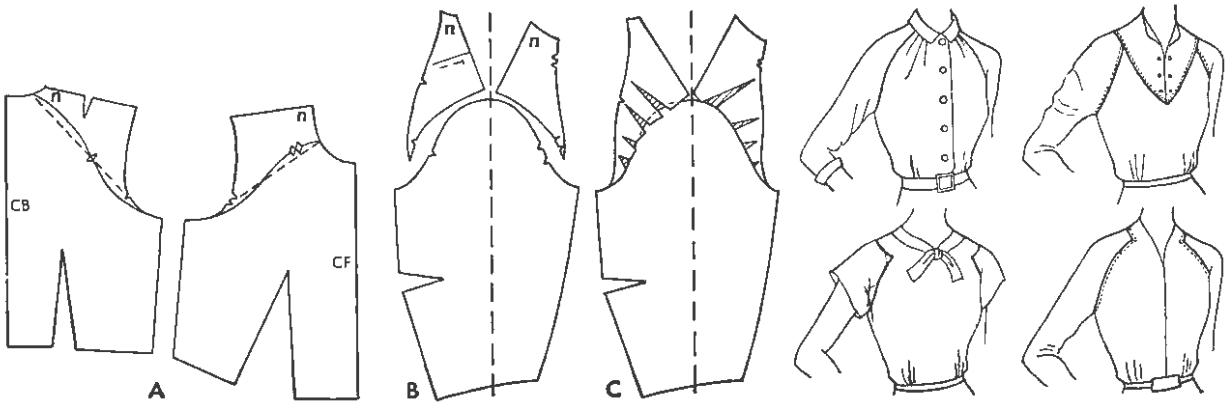


Fig. 122. Standard raglan sleeve.

line as it approaches the armhole. Mark notches and cut apart.

Standard Close Fitting Raglan

1. Prepare the front, back, and sleeve patterns as for a kimono or dolman blouse, or deep armhole (Fig. 112). The method is similar to that for developing the dolman sleeve.

2. On front and back patterns sketch in the new raglan armscye, A (Fig. 122). It is a compound curve which follows the shoulder seam near the neck but curves to follow the armscye as it approaches the underarm seam. Do not try to make this a straight ruled line. In the back avoid having it come too close to the center back at the neck, or it will form an undesirable point or V there. Be sure that the front and back sections match at the underarm seam if cut low. The blouse will fit better or have fewer folds under the arm if the raglan line does not drop much below the normal armscye; if you want such a

style use Figure 121, B. The more closely the curve follows the shoulder and armscye, the more closely the blouse will fit.

3. Mark notches and cut apart on these lines.

4. Place the foundation sleeve pattern on a large piece of paper and extend the center lengthwise grain line of the sleeve beyond the top of the cap 6" or 7". Arrange the armhole sections above the cap of the sleeve so that the proper armhole notches match, B. Note that the two shoulder seams do not come together but spread out at the neck leaving a wide dart. In the case of quite square shoulders this dart forms a 90 degree angle. It is one of the major basic darts.

5. In order to make the sections of the blouse fit the sleeve cap more closely, slash them from the armscye seam toward the raglan blouse line, C. Cut the slashes so that they extend to but not through the raglan line and at right angles to it as much as possible. Many slashes make a smoother, finished edge, while few slashes make a

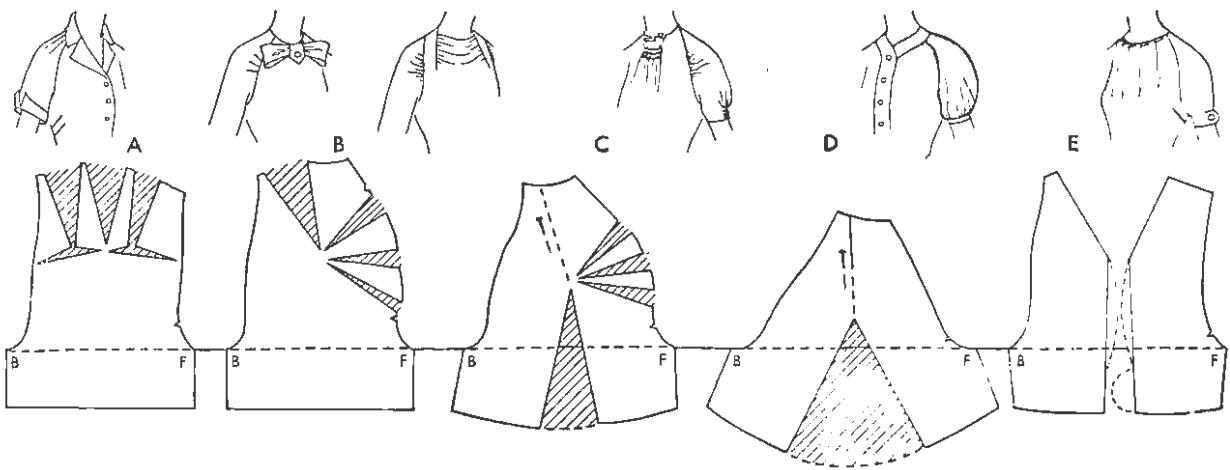


Fig. 123. Pivoting the basic raglan shoulder dart.

very irregular one. Use plenty of pins until all parts seem well balanced and the outer edges fairly even. If the shape is still irregular, sketch in restrained transitional lines to correct. Correct notches. Outline the new pattern just formed.

6. The shoulder dart remaining is one of the fundamental darts basic to pattern designing because of the bulge where the arm joins the shoulder, therefore it may be pivoted or modified like any basic dart (Fig. 123). In A, the wide dart has been divided into several nearby; in B, part of the shoulder dart is pivoted into three narrow

ones entering the front shoulder line. In C, the shoulder dart is swung partly into the front shoulder line and partly into the cuff line. In D, all the basic dart is pivoted to the cuff line for a puffed sleeve. In E, cut apart, the dart becomes part of the lengthwise seam line which may be extended for a stylized silhouette. Other possibilities include swinging a small part of the dart to both front and back at the shoulder line similar to the front of B—the small amount to be eased in dressmaking—a very desirable location on coats.

Chapter 12

COLLARS

NECKLINES

The neckline for a collarless dress needs care to enhance the natural beauty of the wearer and not emphasize undesirable features. As the focal point, it also needs to be perfectly shaped before designing the collar. The faced, plain collarless neckline has been popular as a basic background for necklaces, but it too needs a style line somewhat different from the shape of the sloper; otherwise it appears incomplete. The extended high neckline or one with a slight cowl seems softer and more finished. Having the neckline deeper than it is wide lends height; width lends width. Broad necklines are best worn by women with good-looking neck and shoulders. Square necklines need good curves in the lines (consult Renaissance portraits) to harmonize with the body curves. Deep ovals, the "sweetheart" neckline, and deep curved V's flatter most people. For well-proportioned neck and shoulders some of the modern, free-form (asymmetric) designs may be worn, but they belong with good fabrics and good dressmaking, and they are more or less sophisticated (Fig. 124).

Such necklines should be finished with shaped facings cut to fit. In construction a (1/16") slightly deeper seam on facing both at shoulders and openings helps to keep them lying under out of sight when worn. They are ruined if visibly tacked down by hand. An under-stitch finish helps to keep the facing back from the edge. A well-made shaped facing is the perfect finish for high-class necklines. A sheer yoke is usually lined, i.e., completely faced so that the edge of the facing or stitches to tack it in place will not be visible.

Collarless dresses with fullness at the neckline may be finished with a narrow bias or cord binding

or a faced casing for elastic. Strapless-top dresses need boning at the seams. Self-fabric edgings like loops, scallops, fringes, pleated ruffles, ruching, lace and embroidery edging, and commercial braids are some of the kinds of decoration that may be applied as a finish. Generally speaking these are used in less important dresses.

A good neckline:

1. Maintains a pleasing relationship with the rest of the garment.
2. Is becoming to the wearer.
3. Is not stretched or puckered by careless handling.
4. Is fitted to lie flat on the body without wrinkles, bulges, ripples, or folds.
5. Is exactly alike on both sides unless an asymmetric design is intended.
6. Forms a direct, smooth, continuous line throughout.

COLLARS

No phase of dress designing is more intriguing or profitable than collar designing. Detachable collars are valuable accessories to have and to manufacture. An unusual collar is the only selling point necessary for a blouse to become a best-seller.

A study of museum portraits is most rewarding if you used some "new" ideas. Oriental, prehistoric, primitive, classical Greek, and medieval art abounds in suggestions for collarless necklines. The Elizabethan ruff and the de Medici standing collars of the sixteenth century are beautifully illustrated in every exquisite detail by such artists as Van Dyck, Rubens, and Hals. The simpler versions, like the Juliet or Shakespeare collar, are graceful and flattering in line. The falling collar

NECKLINES

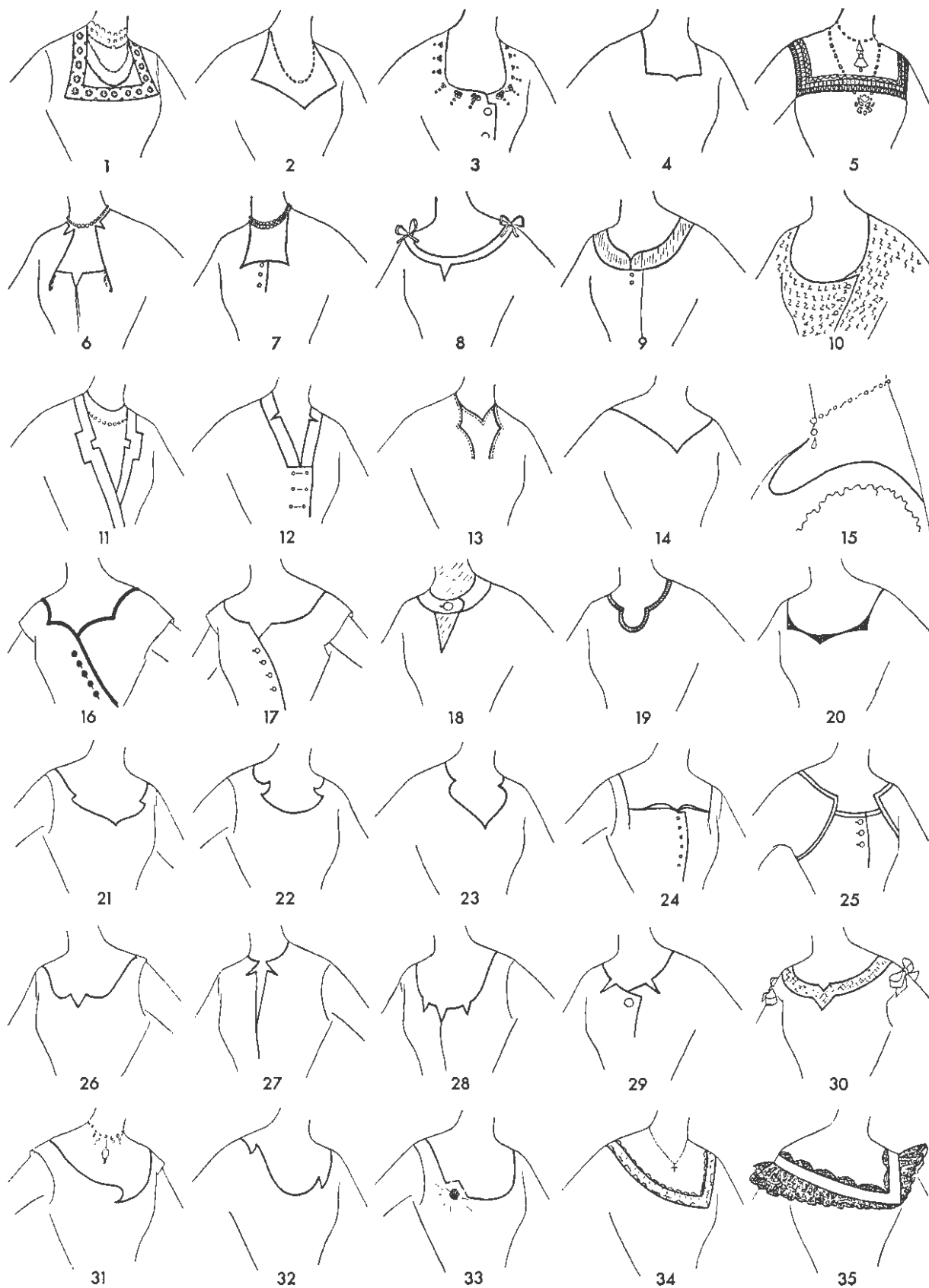


Fig. 124. Neckline shapes create different style effects.

of the seventeenth century is pictured either in handsome lace or the simple white linen we know as the puritan collar—a slight roll at the neck, as a rule, with wide and varied silhouette. The eighteenth century gave us the fichu with tight sleeves and basque, capes of the Directoire, and the Robespierre collar with its accompanying cape, stock, or frilly jabot. In the nineteenth century we had the shawl, the Lord Fauntleroy, the Tuxedo, and the Edwardian black Windsor tie. The twentieth century uses all these styles and some of its own like the Peter Pan, the convertible, the cardigan.

Design

A narrow collar is neat, restrained, and slenderizing. If a large collar is to be kept important and the whole ensemble not bulky looking, it should be designed with a snug or semifitted bodice and plain sleeve. However, this width calls for flare or width at hem of skirt to balance the figure. Long hairdos, heavy coats, and large hats are of course in the way. Wide-brimmed hats for summery styles do better if they do not droop all around, probably with an uptilt on one side as seen in eighteenth century portraits of ladies with fichus.

Almost any type of collar can be modified to suit the shape of one's face, and almost any type can be adjusted to more becoming necklines. In general avoid monotonous equal space divisions. The principle of emphasis is a most important guide—repeating a shape emphasizes, but too much contrast calls attention to the shape. For example, a quite round face appears rounder in a very round collar, but a very pointed or squarish collar also accents the roundness because of the great contrast in shape; a medium oval would be less conspicuous. Very thin, long (skinny or bony) necks need softness or some roll to the collar and not too low a neckline, but if swathed in folds or scarves or very high collars the thinness is accented by contrast. A mannish square-cut high collar only accents neck length. A long graceful beautiful neck is an asset and why shouldn't it show? After all, the neck holds up the head and as a mere functional area should not be concealed.

Collar Types and Names

Collars may be described either according to their silhouette or according to the position around the neckline. The fit or set at the neck

determines its comfort and also its style and becomingness. The silhouette, or outer edge, is characterized by such terms as round, shawl, tuxedo, cape, puritan, bertha, Peter Pan, sailor. A classification of collars based on their set around the neck begins with a flat plastron, then a flat collar, a low rolled collar, a high rolled collar, a standing collar, a rippled collar. There are many degrees of roll as well, such as high, low, flat, medium, standing. To describe a collar it really is necessary to indicate both its degree of roll and its silhouette, as a rolled Peter Pan or a flat cape collar. Obtaining the right set or roll is a technical job; getting a good silhouette is a problem in art or design.

In rolled collars the part we do not see which provides the height of the roll is called a stand. The line where the roll leaves the stand is called the break line, crease line, roll line, or fold line. The break is the point where a lapel starts to roll back from the front hem.

General Procedure

In all collar designing there are certain steps that save much time if followed. First, establish the desired neckline before drawing the elevation. Second, roughly sketch the shape of the collar in the elevation. Third, develop the roll of the collar until it sets just right. Then, work on the final silhouette and, last, develop details after the major shape and roll are approved.

BANDS

A strip of cloth cut an even width and doubled stands up in a pleasing, casual manner when sewed to the shaped neckline (Fig. 125). In transparent fabrics it is best applied like a binding but stands up better if applied with a facing. It gives the effect of a flange. The strip may be a continuous circumference with seams matching the shoulder, or ends may be lapped over in crisscross fashion, buttoned or tied; narrowed to end in points, or buttoned to close. Draping on the form may suggest easing in or stretching at certain places for certain effects. Easing will make it flare more, stretching will make it hug the neck or cup in. The doubled bias fold may be shaped on the ironing board.*

* Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949), p. 480.

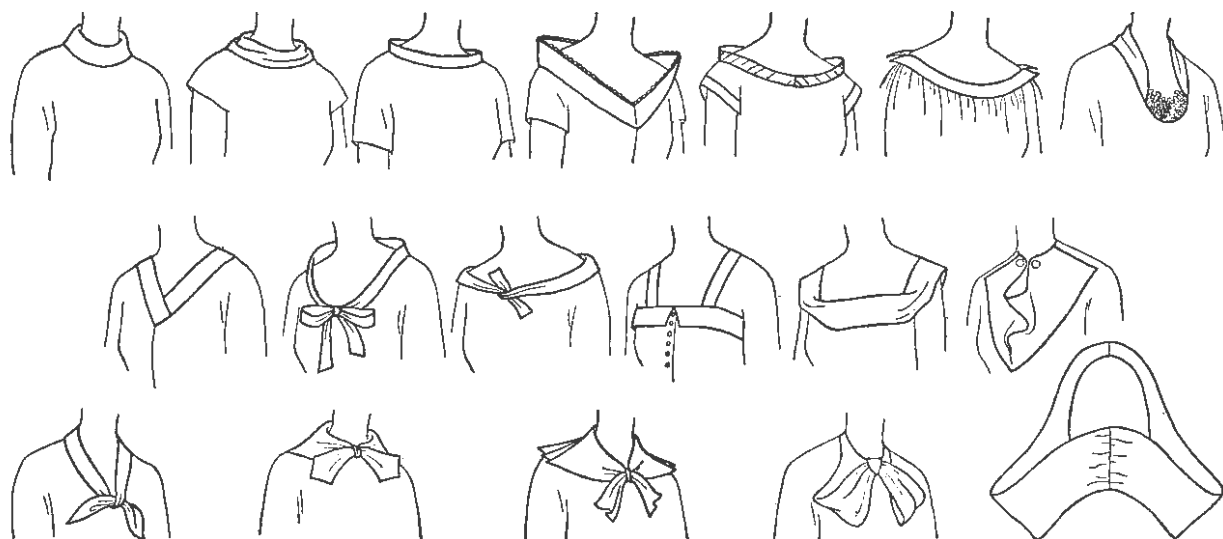


Fig. 125. Bands for collars. Experiment with draping and tying ends.

The band stands up better if the heavier threads, usually the warp, lie across the strip. If cut so that the lengthwise is parallel with the folds, the folds crush flatter. It drapes nicely into folds if cut on the true bias but is not so launderable. Jersey (because it is knit) and bias bands are usually used in making turtle necks. Strips (double or hemmed) in varying widths may be pleated or shirred into ruffles or ruchings.

Try the turtle collar cut 4" wide to finish 3", folded 1½" high. A 15½" length allows ½" seams at ends for a 14" neckline. Stretch slightly on the model and adjust length. Close ends. Do not press fold. Apply with facing or flat ribbon to avoid ridge on neckline, or pink and tack loosely.

Mandarin Collar—Standing Band

The narrow standing Chinese type of collar is slightly military in effect and requires good posture. While best for a slender neck, the severe

line may be broken at the sides or at the opening and cut somewhat less high to make it more becoming for anyone. It needs to be designed so that it does not poke out at the top and not be so snug that it is tight (Fig. 126). First, establish a becoming, slightly lower comfortable neckline. Cut a strip of paper half as long as the measured neckline and as wide as the collar is to be—¾"-1½" high. Make slashes about an inch apart from the top down to the neckline edge, A. Lap slashes slightly until the top measures what your neck measures at the height decided upon, B. The neckline curve of the collar band is convex—just the opposite of the concave curve of the blouse neckline.

This pattern should be cut in firm muslin and be fitted on the blouse on the model. The overlaps in the pattern should be greater where the neck itself slopes the most, which varies with the individual. It should not be fitted uncomfortably

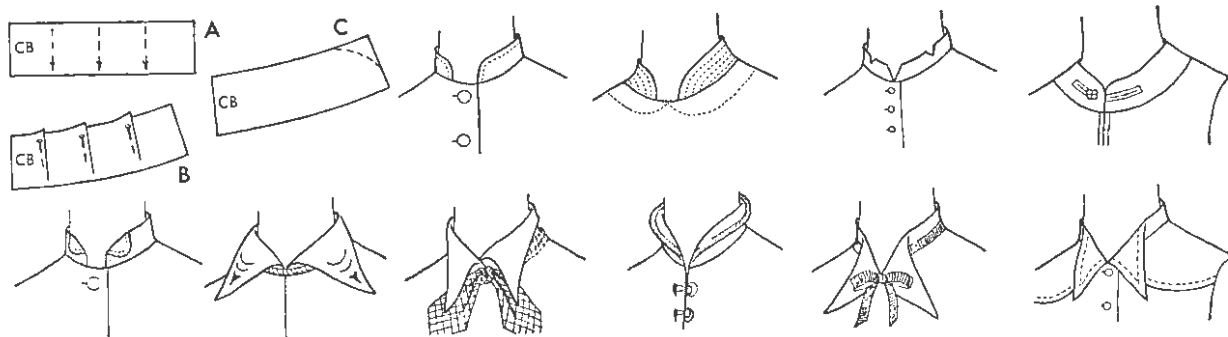


Fig. 126. Mandarin collar—standing band.

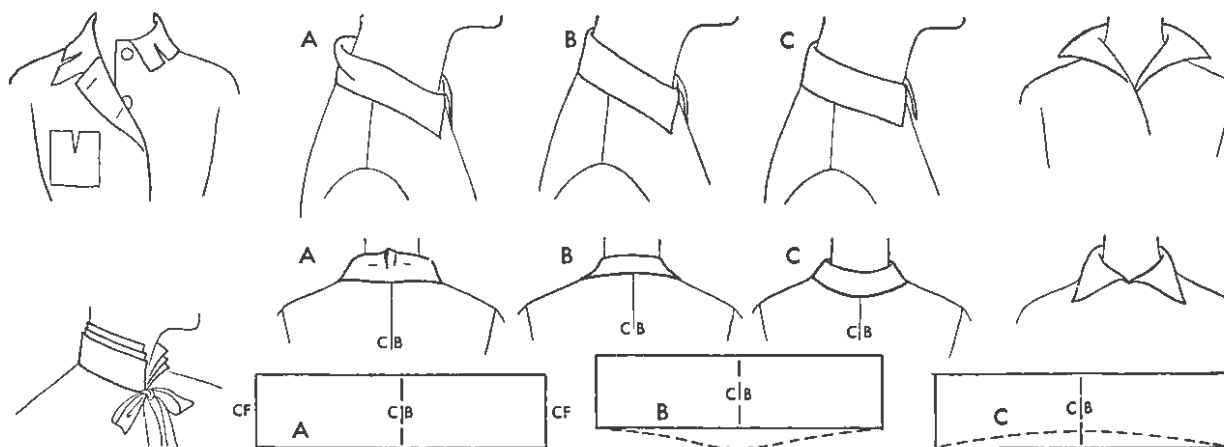


Fig. 127. Convertible collars—three types.

close. After the basic pattern is approved, the shape of the closing and other details may be worked out, C.

Flaps and tabs may be inserted in the seams, or the upper edge of the pattern may be extended in points or wings. Firm material, sometimes interfaced, gives best results. If this collar is not applied with a facing (because it would be too warm or too bulky), when finishing the lining or facing to the seam by hand on the inside, turn just a little more under so that the lining is actually narrower than the outside; thus, it will not show at the upper edge and it will serve to make the collar stay standing up.

The Convertible Collar

The American style shirtwaist came into being at the turn of the century with the advent of women into business. The mannish shirt collar is still the finish for the sport style shirt. But a more comfortable style is the convertible collar which is simply a band around the neck of a blouse opening at the front. With the blouse worn open, the front folds back to make lapels and the collar ending on the center front gives a notched effect. The front facing must be attached in such a manner that the neckline appears finished when worn either up or down.

Three types of convertible collar patterns are made. The first type, A (Fig. 127), is a straight band easier for beginners to attach and launder, hence frequently used on sport blouses, pajamas, and children's garments. It is a good type to use for stripes and plaids. At the back of the neck it pokes out in a slight peak, which in the above

cases is not objectionable. Also, see A (Fig. 130). The strip is cut as wide as the collar and in length to fit the neckline usually from CF around to CF. If a seam is not desired at the edge, the strip may be cut with the outer edge on a fold.

The second type, B, is made to hug the back of the neck. For half of the collar pattern draw a rectangle half the length of the neckline (measured with a plastic ruler or stiff tape from CF to CB) and about twice as wide as you want the collar to be. The silhouette or outer edge of the collar may be modified later. Add to the stand at the back of the neck about $\frac{1}{2}$ " (the depth of the back neck curve on your sloper). Gradually slope this off in a convex curve to the original line at CF. Measure length of curve and shorten collar at CF to restore correct neckline length. While this type and the Mandarin collar both are convex in shape, note that the outer edge of the Mandarin is also curved, while in this collar the outer edge is straight and may be cut on a fold. However, it may be modified in shape at the outer edge and have to be lined or faced. Last add points or curves to pattern at CF, and change silhouette in width and shape if desired. Cut in muslin and check becomingness, set, and coverage of back neckline seam. The front results in a notched effect where it joins the lapel or hem at CF.

The third type, C, is cut to be lower in the back. It does not peak out at CB as much as the straight rectangle, A, and is cooler. It does not fit up as well under a jacket as does type B. Begin with a rectangle as in A and B, but hollow out CB $\frac{1}{2}$ "-1" in a gradual curve back to CF. Correct the length of the neckline, then the outer edge. In this type the neckline curve is concave—very

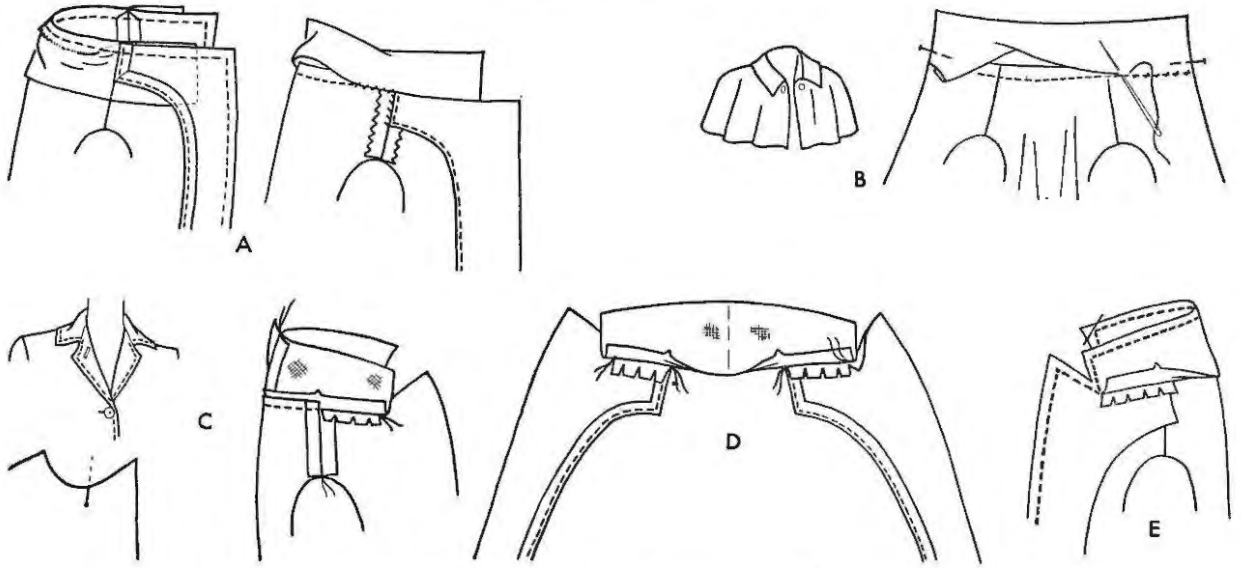


Fig. 128. Standard methods for attaching convertible collars.

similar to a slightly rolled collar. See Fig. 143.

Depending on the fabric texture there are five or six methods of attaching the convertible collar.* A simple dressmaker method A (Fig. 128), is suitable for washable fabrics. Another method, B, is only suitable if the under finish will not show. It is not considered very professional because it is difficult to keep CF line perfectly continuous. Pins illustrate the need for keeping the collar edge in line with the garment edge. In both methods, previous stay-stitching on the neckline of the garment is necessary. Type A convertible collar being cut straight would need no stay-stitch, whereas types B and C would both need stay-stitching and also clipping of all curved seams before sewing together.

C shows the tailored method—circumference seams stay-stitched and joined, clipped, and

pressed open on the garment; top collar sewed to facings with circumference similarly prepared, D. Then, D and C put together, E, to stitch the silhouette seam, last. This detailed procedure involving interfacings is required for heavier materials and generally used in tailoring.

Shirt Band

The mannish shirt collar is made in two parts—the band, which is the stand, A, and the overfold, B, or collar proper (Fig. 129). The stand is made by using type B convertible collar. Cut the convertible collar along the fold line leaving the stand $\frac{1}{8}$ "– $\frac{1}{4}$ " narrower than the overfold of the collar. Taper off the top of the stand at CF and add this amount to raise the neckline of the collar at CF, B. Add an extension at CF of stand to provide room for button and buttonhole and match hem on front of shirt. The silhouette may be modified.

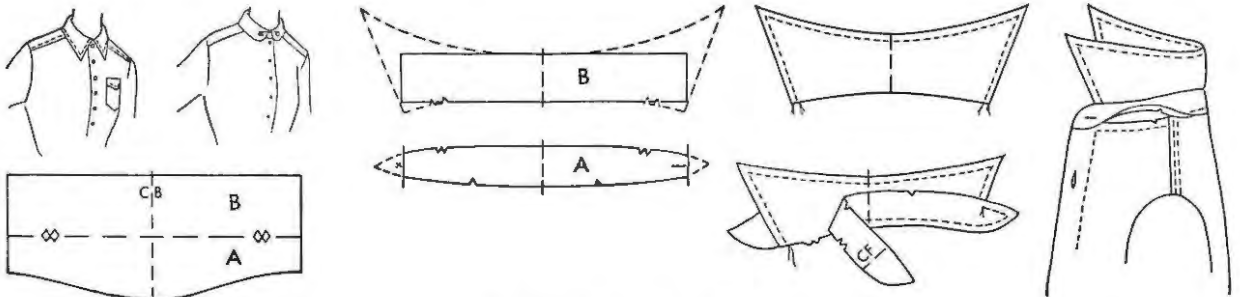


Fig. 129. Shirt collar band.

* Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949), p. 375.

The Fichu

A fichu (Fig. 130) is only one step from a band tied around the neck (Fig. 125). So much depends on the texture that you should drape some of your cloth on shoulders and neck to get an idea of how long and how wide to make it, whether to cut it bias, or to make it double, or how to end it—in a point like the end of a shawl collar, in a group of pleats, in a lap, or in a tie.

It may be made from a triangle, A, hollowed out or from a strip, B.

To begin, have the neckline trimmed to a becoming lowness. Cut a strip of paper 6"–8" wide and half as long as you want the draped fold to be (36"–48") as in type A, convertible collar. Near the shoulder where the neckline curves or at corners of a squarish neckline, put in three or more darts on the neck edge, each about 1" by 3" wide until the strip fits the neckline of the blouse. The darts have changed the straight strip to the shape of a type C convertible collar—with the outer edge straight. You may hollow out CB neck edge a little more to reduce the stand, still type C, or build up the neck edge as in type B. Thus, the silhouette is kept on a straight line so it can be cut on a fold there or of embroidered edging, bordered fabric, or ribbon.

It would be possible to develop the fichu by cutting a cape collar with a circular edge which would have to be faced, hemmed, or lined. The cape collar could have the neckline slashed and spread for decorative darts until the silhouette became straight. Either method gets similar results, but using the method illustrated, Figure 130, develops naturally with your fabric.

Flared Standing Collar

The Elizabethan (the Betsey or de Medici) standing collar is cut in the same manner as a fichu. A low neckline is best. Many darts across the back and around the shoulder seam enable one to cut the collar from a piece of lace about 5" or 6" wide without disturbing its scalloped edge. Begin near CB and dart the strip until it fits the neck, C (Fig. 130). At the end, pleat the cut end or miter the corner to preserve the scalloped edge. A pattern may be made in paper like this so that fabric can be cut in one semicircular piece with applied edge finish.

To secure a more modified effect—a sort of petal roll or Juliet style—begin with type C convertible collar band that fits the chosen neckline, D. After fitting slash the outer edge at intervals around the back and shoulders and spread slightly

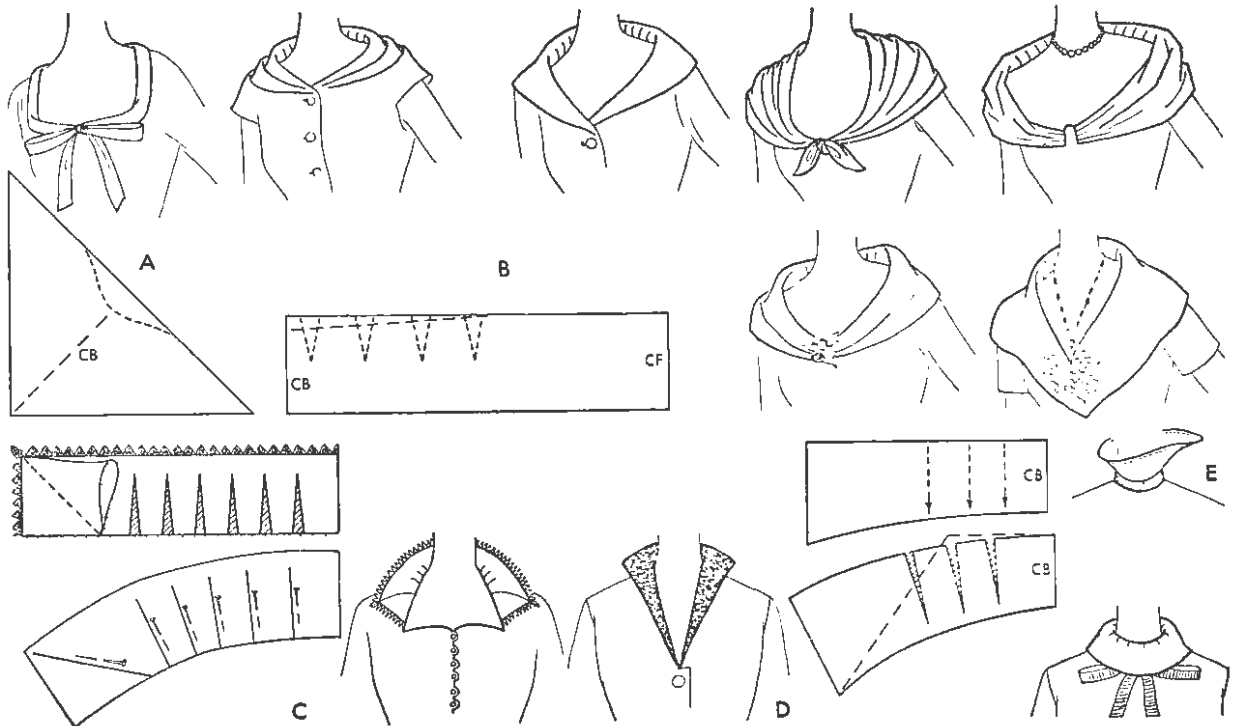


Fig. 130. Fichu, A and B. Elizabethan—flared standing collar, C or D.

until the silhouette becomes more convex. This band 3" or 4" wide is a subdued version of the Elizabethan collar and attached, to a square, sweetheart, or bateau neckline, gives quite an unusual effect. The silhouette can be modified or increased (dotted line).

Both collars are dramatic and should be made up in handsome material. They belong on wedding gowns or frocks for concert appearances; as a rule they are too "arty," affected, theatrical, or overly picturesque for general wear. In E, we have a separate stand used to support a flared or semi-circular piece.

Reversed Roll Collar

On heavy winter coats and luxurious evening wraps, large collars of cloth or fur are used in which the outer edge (as well as the neckline

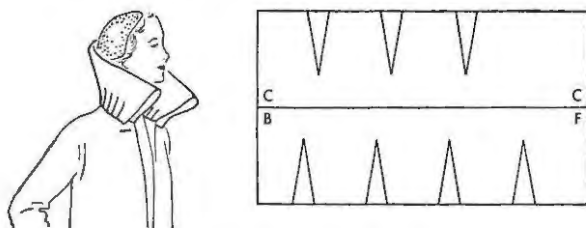


Fig. 131. Reversed roll collar.

of the collar) is darted to make it stay up on the shoulders. Begin with a straight strip or convertible collar type A, B, or C (Fig. 131). Have the strip long enough to frame the face. First, dart to fit the neckline as in a fichu. Then dart the outer edge almost as much. Such a collar may be built on a separate stand, like the shirt collar band, to reduce bulk next to the neck. It may also be made separate from the coat, then tacked on.

Collars That Stay Standing

While the cut is important, tailoring or dress-making controls the final effect of a stand-up collar.

The fabric especially when doubled may be stiff enough in itself such as taffeta, organdy, poulde-soie, baratheia, or faille. Several rows of machine stitching on the edge of narrow linen or piqué collars are often sufficient. Starching, wiring, and featherboning have been used for centuries and are still used in this mid-twentieth century. Decorative cording, quilting, pleating, and padding are used at times.

Rows of stitching in the stand help control the roll or flare of a collar; they may be decorative in design. A stand cut separately from the collar as in a man's shirt is one of the best ways to keep a collar up; the stand may be stiffened more than the collar. A tie around the collar band may serve as a stand—stiff grosgrain ribbon, a self-made piqué half-inch wide tie, or a six-inch black taffeta bow.

Further stiffening is achieved by an interfacing of self fabric, lightweight hair canvas, nurses "linen" or permanent finish organdy, depending on the collar fabric. It should be preshrunk and cut to match the facing (lapel, collar, pocket, peplum, or belt). It should be stitched to the wrong side of the under collar or facing about $\frac{1}{4}$ " back of the seam line—by machine if it won't show or by small catch stitches that won't show on the right side; then trimmed off $\frac{1}{16}$ "– $\frac{1}{8}$ " from the seam. The result is a professional looking collar that holds its shape and does not wrinkle or crease in dry cleaning or washing, yet is not bulky at the seam edge.

Collars cut with darts around the back (Elizabethan) are stiffened by the darts themselves (wire may be inserted or sewed to darts). Most important is to apply the collar with a facing wherever possible so the collar neckline seam turns down on the blouse, not up into the collar as it would if applied like a band.

THE FLAT COLLAR PATTERN

The flat collar may be only an inch or two wide, or as wide as the shoulder or wider like a cape but the method of making the patterns is the same (Fig. 132). The first step is to establish a becoming neckline shape on the blouse often at the first fitting of a dress or blouse. For a regular high neck, as a rule, we hollow the sloper neckline $\frac{1}{2}$ " lower in front to give a little room for the collar, but we do not cut away the neckline across the back or at shoulder seam, A (dotted line). Make a copy of the neckline by placing the front and back blouse patterns together at the shoulder seam, A. Mark the shoulder seam, CF and CB, and sketch in a rough shape of the silhouette. This procedure results in a one-piece shaped facing as a basis for the collar. But it is still a facing not a collar—in this state it would be like a flat pancake, rolling up at the edge a little and exposing the seam at the neckline.

We need to be able to slightly stretch the collar on the dress so it will roll enough to con-

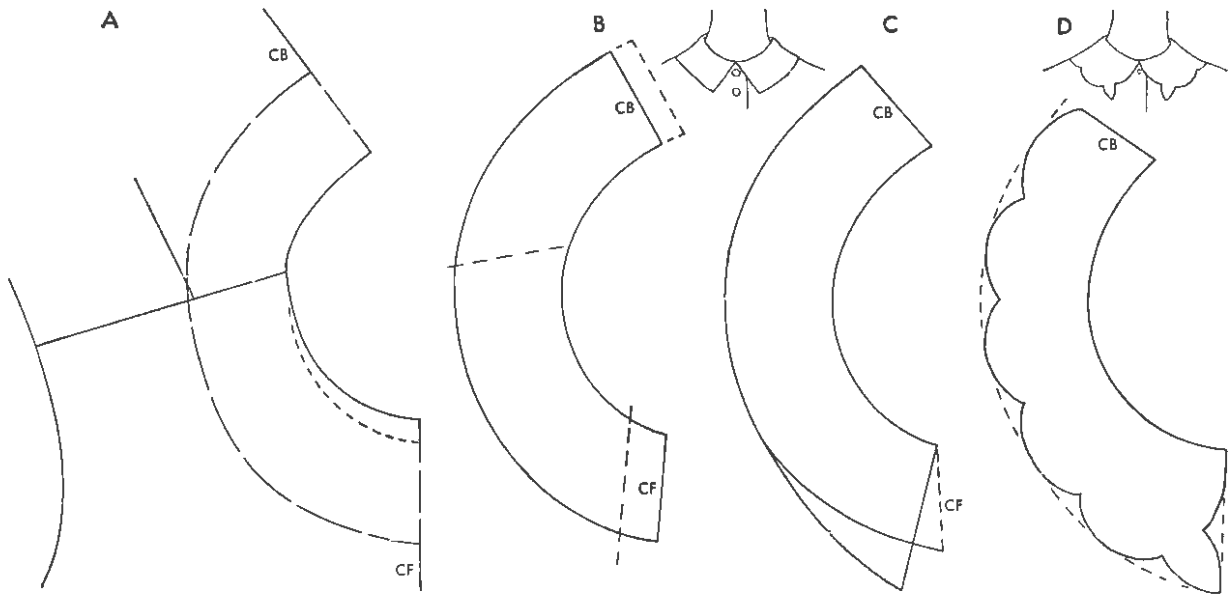


Fig. 132. Steps in making a flat collar pattern.

ceal the seam. A standard method removes $\frac{3}{4}$ " from CF of the facing shape and adds $\frac{1}{2}$ " to CB, B. In this way on a half pattern the collar is cut $\frac{1}{4}$ " smaller than the half neckline it is to fit so that stretching of the collar is required. More important still is the fact that the neckline curve of the collar has been shifted and thus the pitch or set at back of neck is improved.

The last step is to refine the silhouette, C and D. Simple direct curves in harmony with the face, the neck shape or other style features of the dress are required. As a rule the collar appears better cut at an angle away from CF neck, C. The ends of the collar should meet at CF, unless some design feature like a panel, tab, or band is there; or the ends of the collar should be far enough away from CF that it plainly shows it was intentional in designing not an accident in sewing.

On square or similar shaped necklines, the collar may look better and apply easier if a seam is made in each corner of the collar.

An extra firm edge or a broken line on the silhouette of a flat collar helps to prevent the edge from rippling. A flat collar is used when designing two or three layers. In some cases a shaped facing applied to the right side of the garment is a better choice than a flat collar (first sketch, A, Fig. 133). Sometimes part of the pattern is finished and applied like a collar and the rest like a facing (last sketch, A).

On square or similar shaped necklines, the collar may look better if a mitered seam is made in

each corner of the collar, or if the collar is cut in several sections, B (Fig. 133).

Don't forget to give special attention to the shape of the collar across the back of the neck, C (Fig. 133).

Plastron and Gilet

The plastron is a flat collar cut like a facing and worn loose on top of the dress. The name signifies the intention of giving a plastered-on or flat effect. It may be cut as a one-piece facing like a collar or in two pieces with shoulder seams (Fig. 134). There is less danger of the dress slipping out and showing at the neck edge if the collarless plastron is cut $\frac{1}{5}$ " higher at the neckline or the dress cut slightly lower. A. As the plastron is a decorative feature, unusual shapes are desirable. Because it may be entirely removable, it is valuable in making quick and complete changes in a basic dress. It is held in place by buttons, clips, tabs, ties, or ornamental pins.

A gilet is similar to a plastron, usually a bib effect or vestee, F. It is cut like a yoke with a collar attached. It is frequently worn like a vest in place of a blouse under a jacket.

Cape Collars

The cape collar is simply an extra wide collar which hangs well down below the shoulders (Fig. 134). It is unsuited for children's play clothes as it interferes with their activity. While it is con-

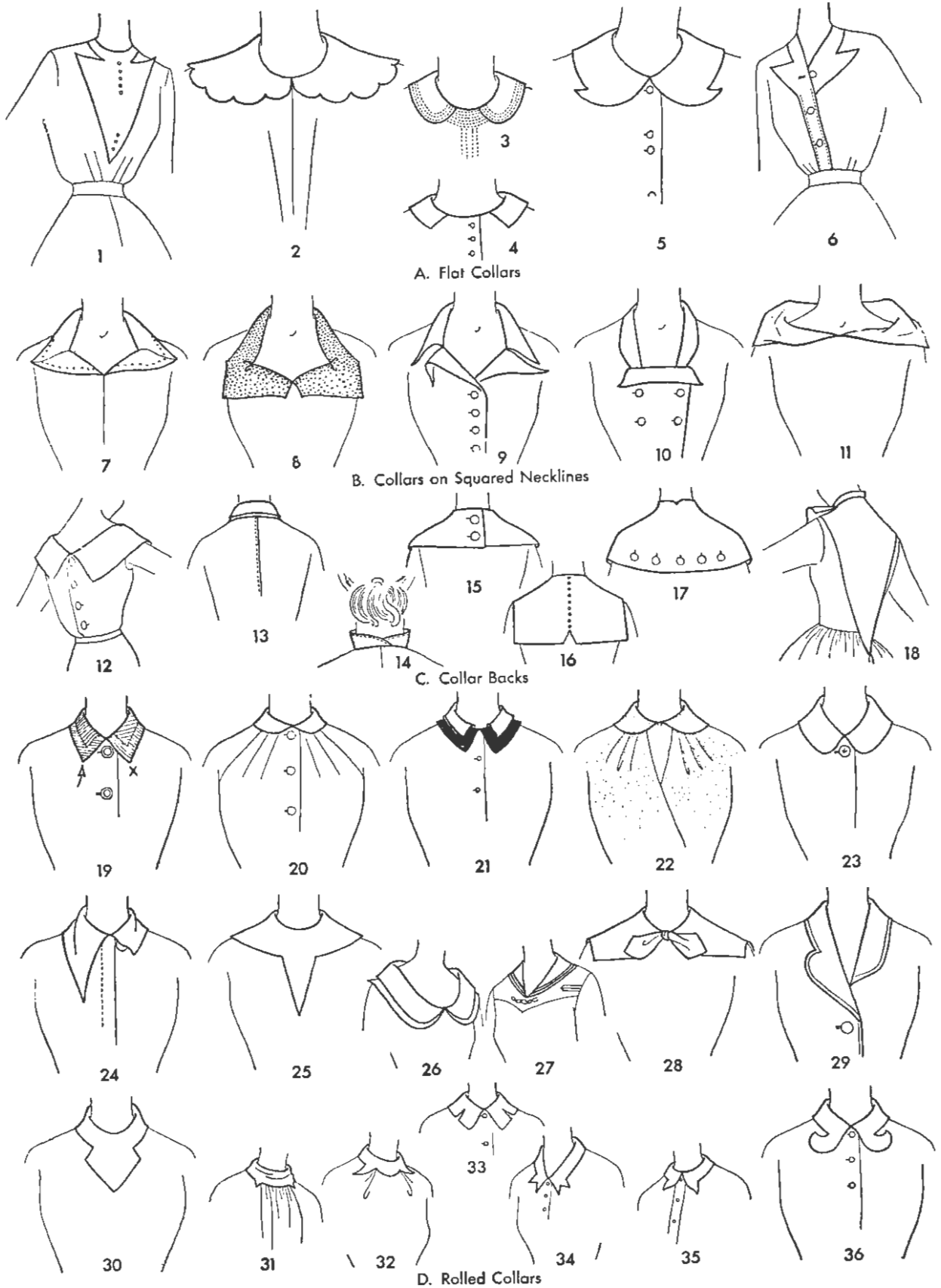


Fig. 133. Silhouette is created both by the depth of roll and by the shape of the free edge.

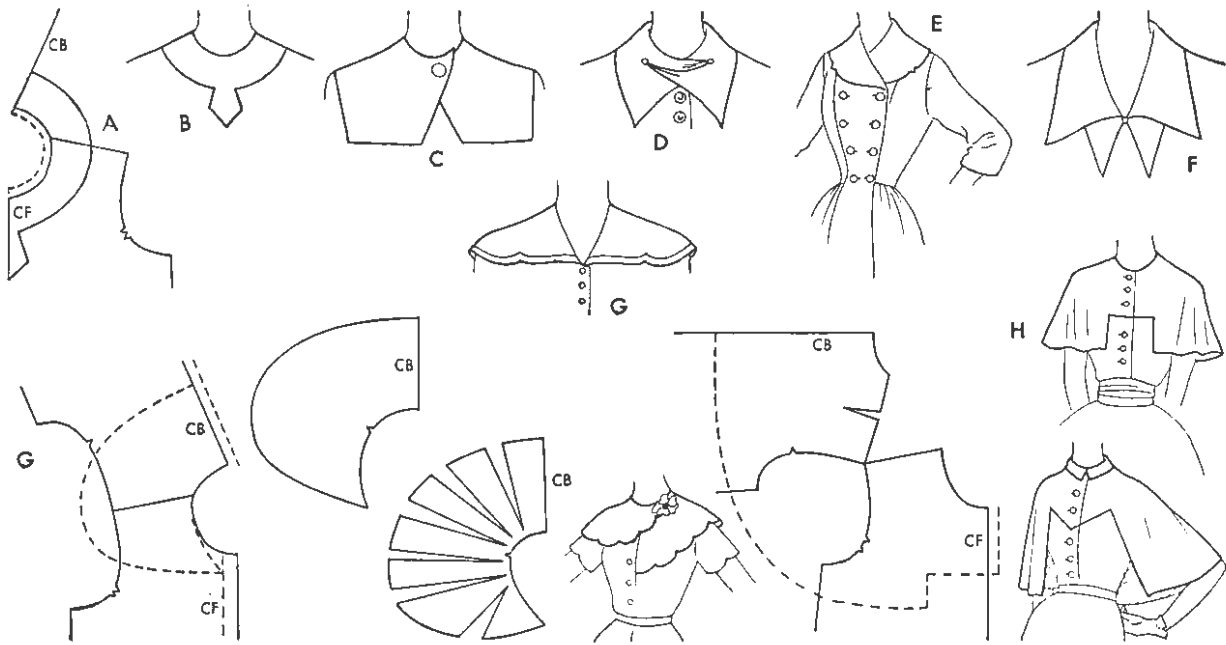


Fig. 134. A-E, plastrons; F, gilet; G and H, cape collars.

sidered youthful and flattering it should generally be avoided by the middle-aged woman or she will appear elderly. A cape is better if the lower edge misses the bust line and hangs longer in the back. A narrow rolled collar or a flat bow at the back of the neck is a good filler above round shoulders. The cape itself bridges the hollow of a sway back. It may serve as a substitute for short sleeves.

The cape collar is cut like a flat collar, G. Have neckliue approved, then place front and back blouse patterns together at the shoulder, remove $\frac{3}{4}$ " at CF and add $\frac{1}{2}$ " to CB to reduce neckline length $\frac{1}{2}$ " over-all. Sketch in silhouette by extending edge shape beyond shoulder seam.

To give a rippled effect, slash where flare is desired from free edge to but not through neck. The spreads may be sufficient to bring CB and CF on a straight line so both can be on the grain. A seam over the shoulder line will aid in fitting a curve over the sleeve cap or adding to the silhouette, and in addition enables one to cut CF as well as CB on the grain. It is possible to cut a complete circle as in H, with shoulder seams converted into a dart.

THE ROLLED COLLAR PATTERN

A rolled collar is developed from a flat collar pattern by slashing and lapping the outer edge to produce a straighter neckline, less concave than

the blouse or the flat collar. Reviewing the flat collar (Fig. 132), begin with blouse neckline satisfactory in shape. Make a copy by joining blouse front and back at shoulder seam. Remove $\frac{3}{4}$ " at CF and add $\frac{1}{2}$ " at CB to make it smaller and change the pitch. Sketch in a temporary silhouette.

To create the roll (Fig. 135), from outer edge slash to but not through the neckline, A. Slashes should be directed at right angles to the neckline beginning about 2" from CB, B. Have more slashes near shoulder seam where curve is greatest. Lap more at back and sides than in front where collar flattens down as a rule, B. If CF of collar is to be buttoned together or have tie underneath to keep the roll high, then slash and lap here also. Too few slashes result in a crooked neckline.

How much shall we lap? It is possible to lap so much that the result is a straight neckline like convertible collar type A. A moderate lapping results in a shape similar to type C, a moderate concave curve at neckline—not as concave as the blouse or facing neckline. Several trials should be made in paper and in muslin to secure various degrees of roll. It is clear that the more nearly the collar neckline approaches a straight line, the more it rolls; and the more nearly the collar neckline curves to fit the curve of the garment neckline, the flatter it is.

The stand or depth of roll has consumed part

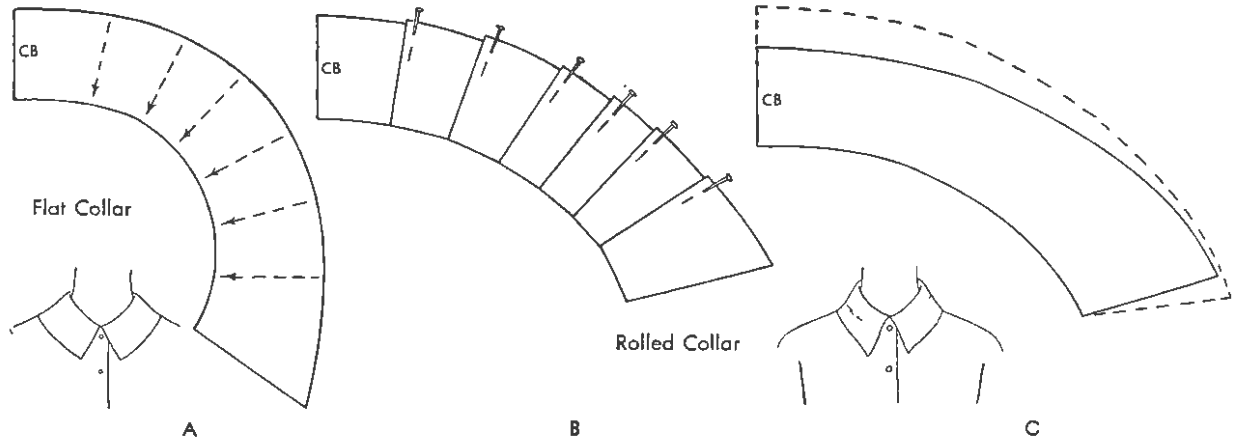


Fig. 135. Steps in making a rolled collar pattern. A, flat collar marked for slashing. B, slashes lapped to straighten neckline. C, silhouette widened to replace width taken up by stand.

or much of the collar width. If the stand is about 1" high the collar needs about 2" or more added to the original width of the silhouette—about 1" up and 1" down. Hence, one's first sketch should allow for the stand, or one should wait until the roll or set about the neck is approved before carefully sketching in the silhouette.

THE RIPPLED COLLAR PATTERN

Rippled effects are used to secure a feminine, dainty softness about the neck and face. Short tucks and darts at intervals of half an inch part of the way across a band of embroidery or hemmed strip of fabric release a frill at the edge. Tucks will make the collar roll very decidedly like type A about the neck but darts shape the strip into a semicircle which makes a flatter collar. Godets, gores, and pleats may also be inserted to give a rippled effect.

A rippled collar is simply a circular frill or ruffle cut to fit the neckline. It is designed exactly as we design a circular skirt. Begin with a shaped facing and convert it into a flat collar (Fig. 132). To make the ripples, slash from the outer edge toward the neckline, A (Fig. 136). Spread the slashes apart, wherever ripples or flares are desired, B. In a rolled collar we lap the slashes, here we spread. In the rippled collar, the more circular the neckline, the more flare in the final effect.

If rippling is very extensive, the pattern cannot be cut from one piece of cloth. Seams should be made to come in inconspicuous places, or to coincide with structural seams or lines in the blouse such as the shoulder, C. (See Fig. 134, G and H.)

Sometimes we have a collar which rolls or

stands up in back, and ripples in front giving the effect of a jabot. In this case the slashes are lapped at the back and spread apart in front, D.

Jabot

A jabot may be merely an accessory like a tie for a collar or be cut in one with the collar (Fig. 137). It is merely a variation of the rippled collar or circular flounce.

On the blouse elevation draw in the silhouette of the jabot and a few lines to indicate the direction in which the folds lie, A. Make a copy of the shape; slash from free edge to but not through opposite side and spread two or three times the width of each fold you want, B. Smooth the silhouette line. It may be necessary to plan seams which will come under a fold—plan the fold to fall on bias and seams on the straight under a fold, or along the shoulder, or along some other structural line.

Cowl Collar

A cowl collar, like a cowl yoke, is made by slashing any collar pattern on the horizontal lines where you want the folds to be. Spread to make deep folds. Really a cowl collar is like a fichu turned around. It might need a lining like the original pattern (before slashing) to keep folds intact.

Halter Neck

The halter neck may be a flat or rolled collar across the back attached to blouse front at shoulder seam similar in appearance and method of making to the collar and lapel cut in one (Fig. 138).

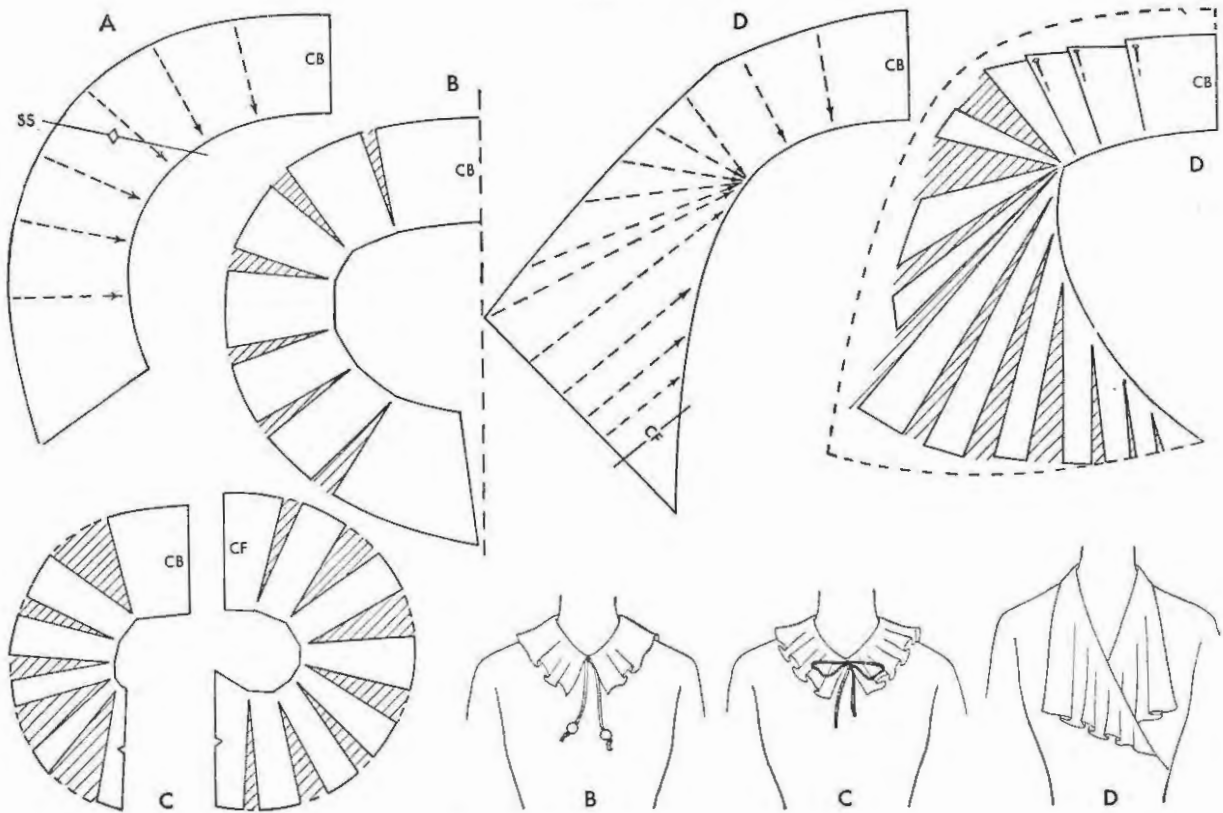


Fig. 136. Ripples in collar patterns.

Shawl Collar

The shawl collar may be developed in three ways (Fig. 139). If it is narrow it may be made of a bias strip folded lengthwise, A. Pin it around the neckline easing it at corners or deep curves (shoulder seams) and stretching slightly where you want it flat (across the bosom or CB). Gradually narrow the strip as you reach the opening. Since texture affects the stretch and roll of bias, this collar should be developed by draping fabric rather than drawing on paper. This type of shawl collar is essentially a variation of type B convertible collar.

If the outer edge is of irregular shape, the shawl collar would be cut like any rolled collar and applied with a facing, B.

The best method is to cut the shawl collar as the notched or tailored collar cut in one with the lapel, C. Part of the basic blouse dart is often thrown crosswise into CF to provide length from break to CB of the shawl collar so that it will not rub the side of the neck. In cutting a deep V neck, a great deal of this basic horizontal dart disappears.

The Tuxedo collar is cut in the same manner as the shawl collar, but is longer and hangs straight

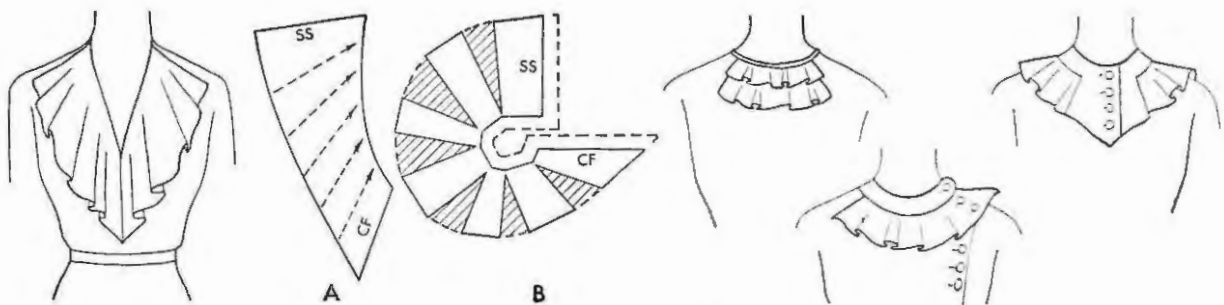


Fig. 137. Jabots and frills.

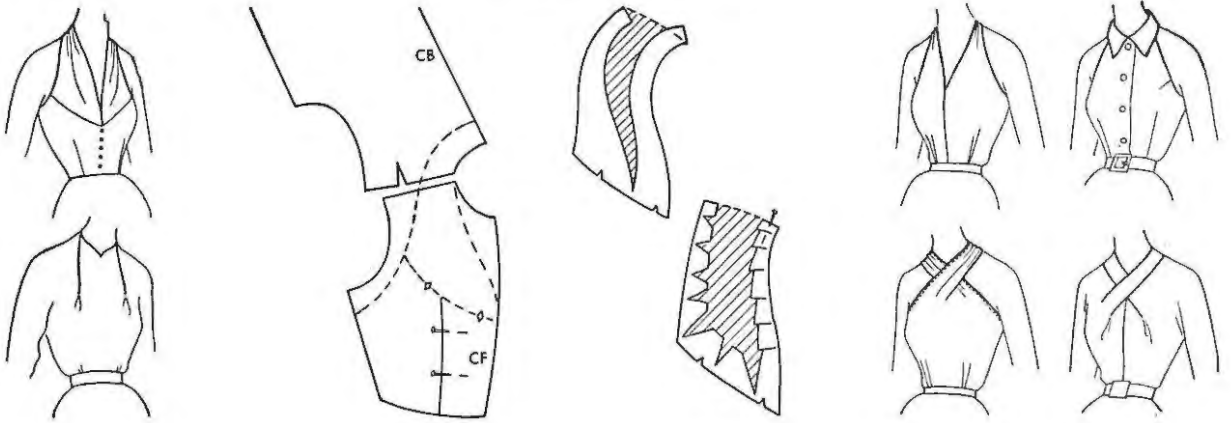


Fig. 138. Halter neckline.

to lower edge of garment, D. The opening of the garment does not overlap but hangs free and the collar may be as wide at the bottom as at the top.

COLLAR BAND ATTACHED TO LAPEL

Begin with large sheet of paper; draw on it the blouse front elevation with CF, buttons, edge line of closing, neckline V, break or roll line for lapel and shape of lapel, A (Fig. 141). Fold paper back on neckline (now the roll line) of right front

(we will discard left side) and trace the lapel in reverse. With lapel opened out, cut on front closing line and silhouette edge of lapel, then remainder of block, B.

On the fold line of lapel slit from top to but not through lowered end at beginning break. Spread at the top the height of the stand 1"-2", C. Fasten to a piece of paper.

Cut a band for back of neck half the exact measured length of back neckline and as high as stand

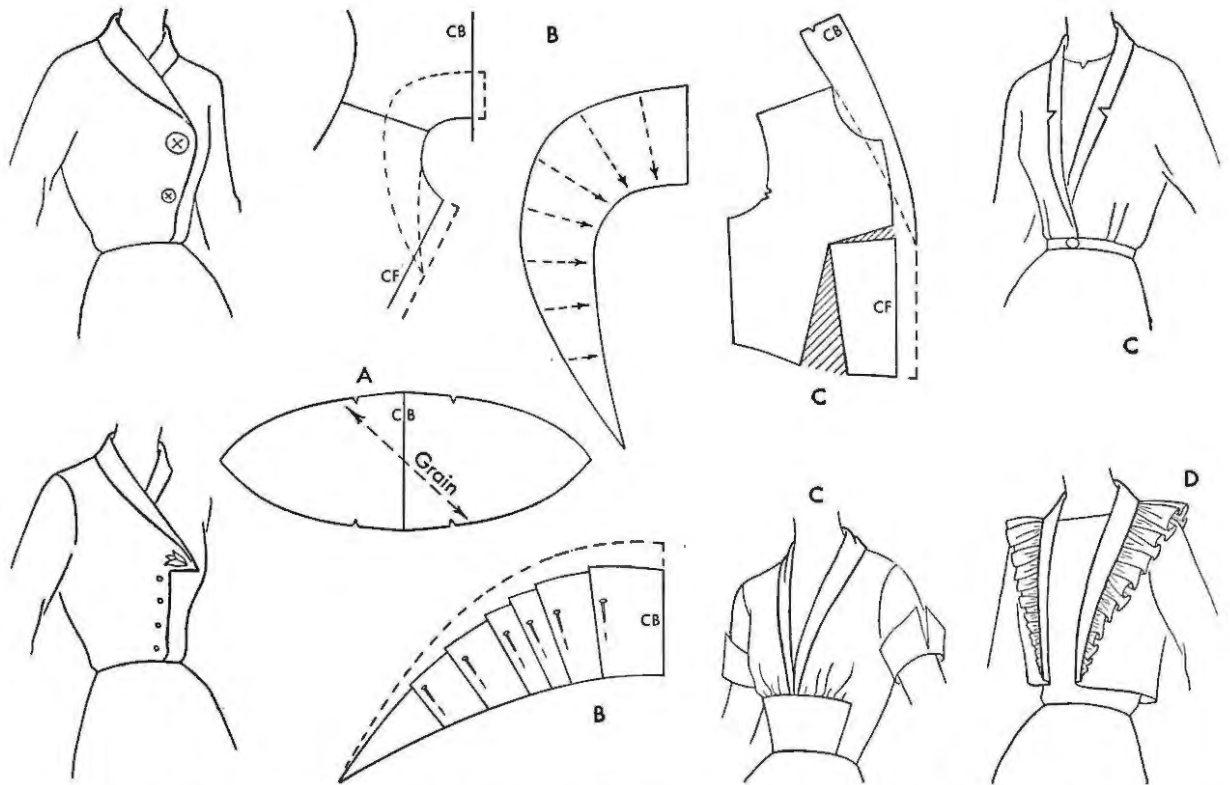


Fig. 139. Shawl collars. A, folded bias strip shaped like type B convertible. B, standard rolled collar. C, lapel and collar cut as one. D, Tuxedo collar with ruffle.

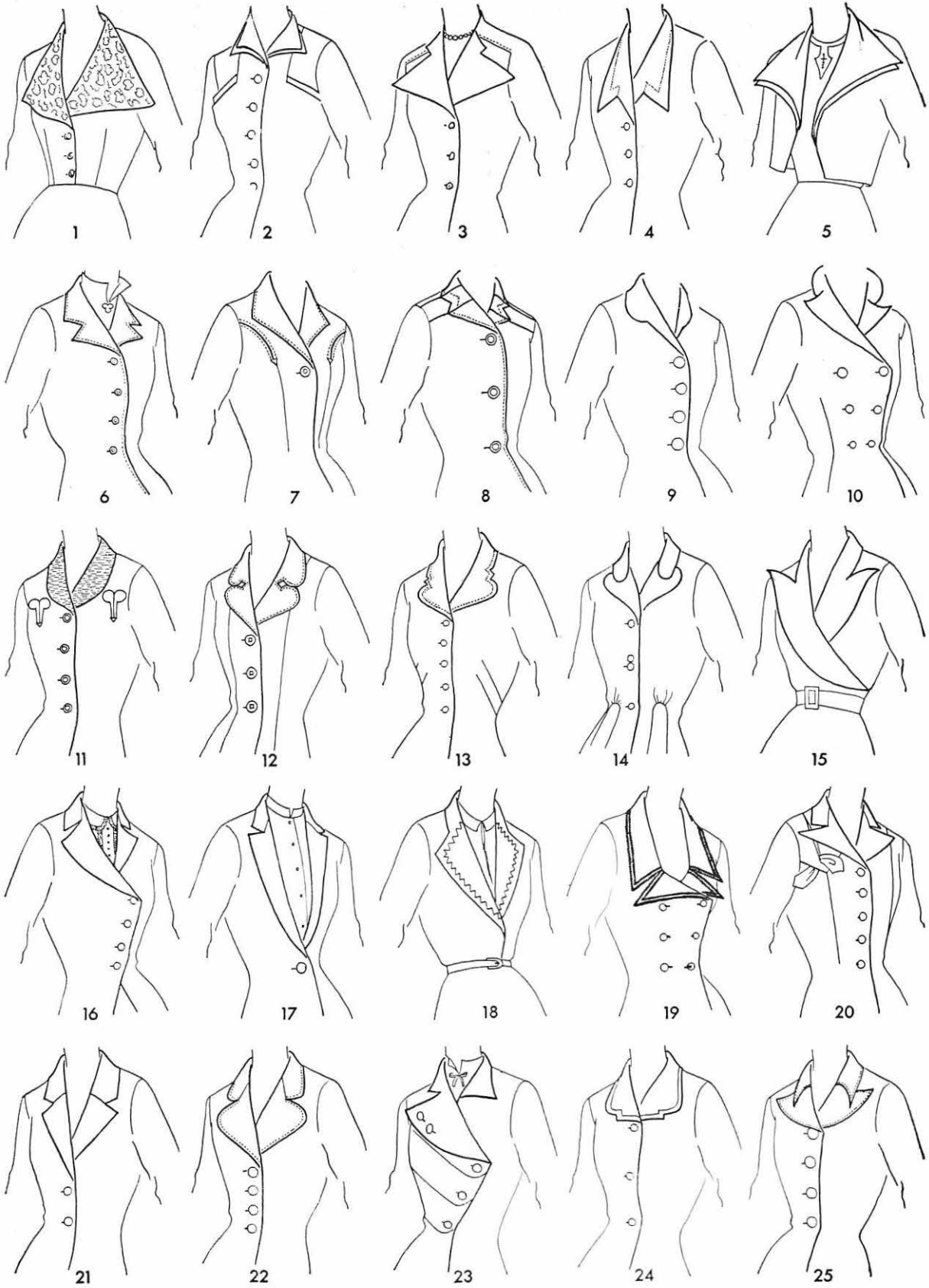


Fig. 140. Collars cut in one with blouse or jacket front.

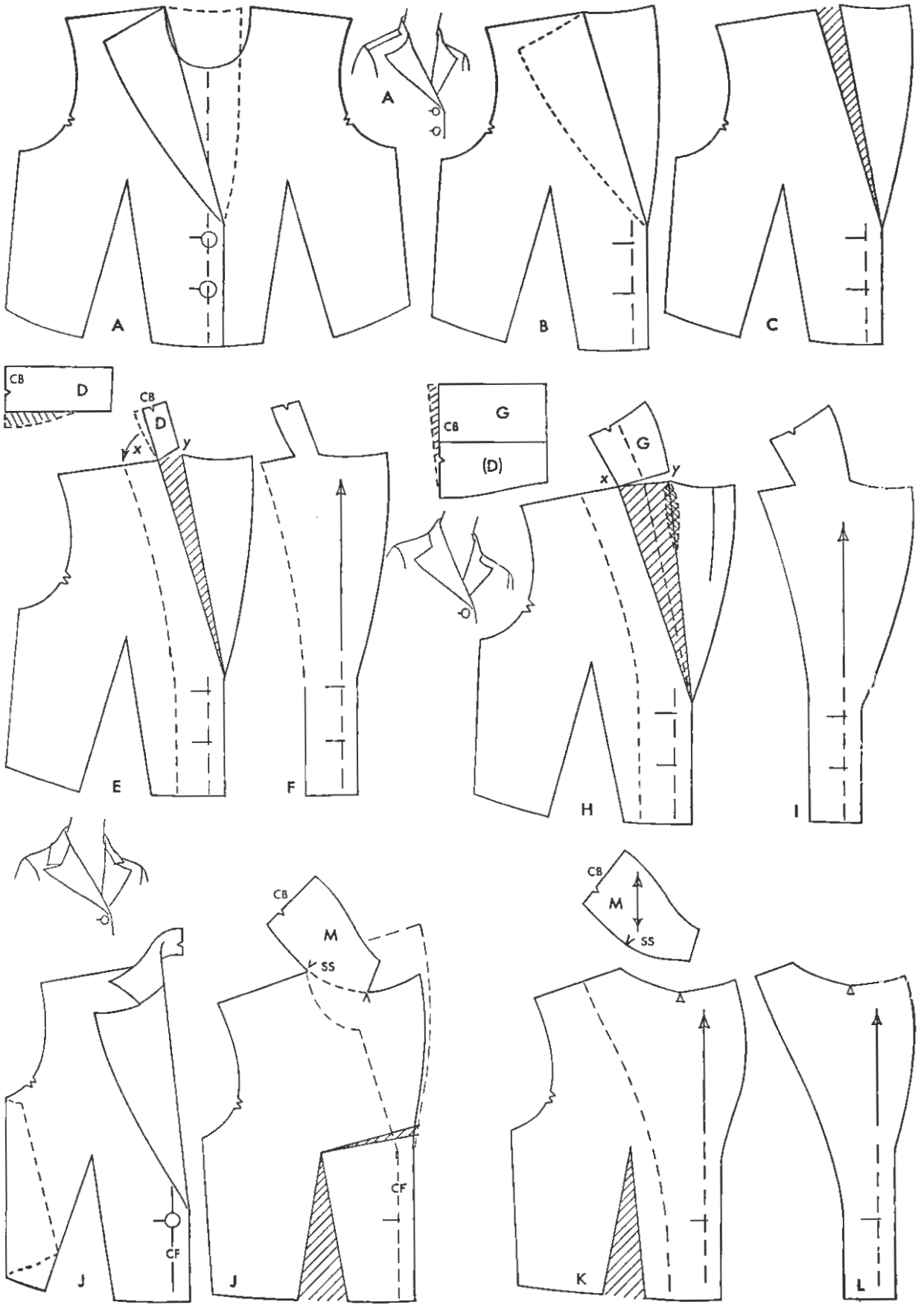


Fig. 141. Steps in developing collar cut in one with lapels.

—1" in this case, D. It may be straight type A convertible collar pattern or shaped like type B, i.e., $\frac{1}{2}$ " deeper at CB. Arrange shoulder end of collar to fit the stand (provided in the slit) on an extension of the front shoulder seam, E. Tilting slightly so that the angle x is less than 90 degrees prevents the band from peaking out at the back and gives more ease around neck at point y . The higher the band, the higher the break line; the more the blouse laps (as double breasted) the less angle x should be. On this band $\frac{1}{4}$ " is sufficient spread.

With a generous seam at CB some fitting there is helpful to suit texture and set of neck. This pattern should be cut in firm muslin and fitted. If it is too snug at the top against the neck spread y slightly more. Correcting the pattern will make x less of a right angle.

Cut a facing, dotted line, E, to extend $2\frac{1}{2}$ " along shoulder and wide enough to cover buttonholes, with grain matching blouse, F.

Rolled Collar Attached to Lapel

The procedure in making a rolled collar cut in one with a lapel is similar to making a band cut in one with the lapel A to F (Fig. 141). Make the elevation and fold lapel as you want it. Slit the fold line and spread at shoulder twice the amount of stand, as 2" for a 1" stand at shoulder—a little less than the amount at CB, (in order to make the stand or roll gradual from CB to end of break at CF).

Cut collar pattern like convertible type A or B (or C if you want a flatter, cool summer collar), but wide enough to provide two sections—the stand and the overfold, G. The overfold should be a little wider than the neckline of stand since it rests over it, and a little longer. The result is a slight curve at CB.

In attaching collar pattern to lapel have stand of collar match stand of lapel, spreading apart slightly at y as in E, only more so. The longer the fold line, the higher the stand, the wider the collar, and the more the blouse laps at front the more pull there is at this point. Since there are these factors involved you will need to try $\frac{1}{4}$ ", $\frac{1}{2}$ ", or 1" spread; you can judge the result partially in the paper pattern by trying it on the form or yourself.

Then make the blouse up in muslin, basting (not pinning) the seams, clipping inside curves and corners to the seam line. If the collar is too

snug or rolls too high, slash from silhouette to neckline of collar and spread slightly. In correcting pattern you will find the angle x is reduced and the collar neckline more curved. If, on the other hand, the roll line sticks out in a peak, pin in a dart; or in the pattern reduce space at y .

It is obvious that this collar fits better if narrow in the back and especially at shoulder seam. Note in last one in top row, Figure 140, how the wider collar crushes or wrinkles.

Another way to improve this collar pattern is to take a narrow reversed dart under the lapel from upper end of break line down in a curve that removes the difference between the standard neck curve and the straight break line you drew in A, (note shaded portion) thus resulting in a softer curved V break line. It reduces the tendency for the break line to rub the neck and gives a wider openness at chest.

To make these collars more comfortable many summer suits have the basic neckline hollowed out especially at shoulder seam before starting the collar pattern making. For thick fabrics, as coatings, swing some of the basic dart into CF to release the pull caused by collar back, as in J.

Finally, refine the silhouette and cut a facing, I.

Notched Collar

The notched collar pattern is developed from the rolled collar with lapel attached, II (Fig. 141). Steps from the beginning A to H, include making the elevation with careful shaping of lapel in relation to CF and buttons, the notch, the shape of the front end of collar to harmonize with the lapel, and most important the seam line from end of V in notch. This seam line may follow the original curve of neck in foundation pattern, or it may be drawn lower or straighter. Slit and spread the fold line of lapel $1\frac{1}{2}$ " and attach collar as in H. Cut out and fold lapel as it will finally be worn, J. If fabric is heavy or the lap very wide, swing some of the basic dart into CF to release the pull caused by collar back.

On this new shape refine design lines, then draw a line from end of notch to intersection of neckline and shoulder seam. Place notch mark on collar where it meets shoulder seam and notch mark on lapel where collar begins. Cut apart on seam line.

Cut in muslin and fit for style. There are many ways of tailoring the notched collar (Fig. 128). Briefly, for basting the muslin: cut two collar

pieces on the bias for use as under collar (cut two pieces for top collar bias, or straight if for lightweight cotton or silk); cut facings for lapels in good materials; stay-stitch in good materials; clip inside corners and curves; seam CB of collars; sew under collar to blouse right sides matched along back as far as the notch mark. Have fitting. When approved join over-collar to lapel facings; then right sides to right sides, stitch entire silhouette seam, trim, turn, and work edges before pressing.

There are countless variations in lap of garment, depth of neckline, height of stand, silhouette of collar lapel and notch (Fig. 140). A muslin pattern is essential for a well-tailored result. Except in rippled collars, the outer edge of all collars should be snug against the garment.

Silhouette of the Collar

After the collar pattern has been developed to the stage where it sets or rolls properly about the neck, center your attention on the outer edge of the collar. You will have observed by this time that wherever the collar rolls, width must be added to allow for the stand or depth of the roll. After sketching in the shape, cut the collar in trial material and pin on the blouse or model.

If the collar does not roll or stand high enough, if it does not hug the body at its outer edge, or if it tends to ripple, pin in a few darts at the outer edge. If it rolls too much or stands too high, slash from the outer edge and spread to allow it to flatten out some. Then begin work on the silhouette.

To work with a whole collar pattern is better

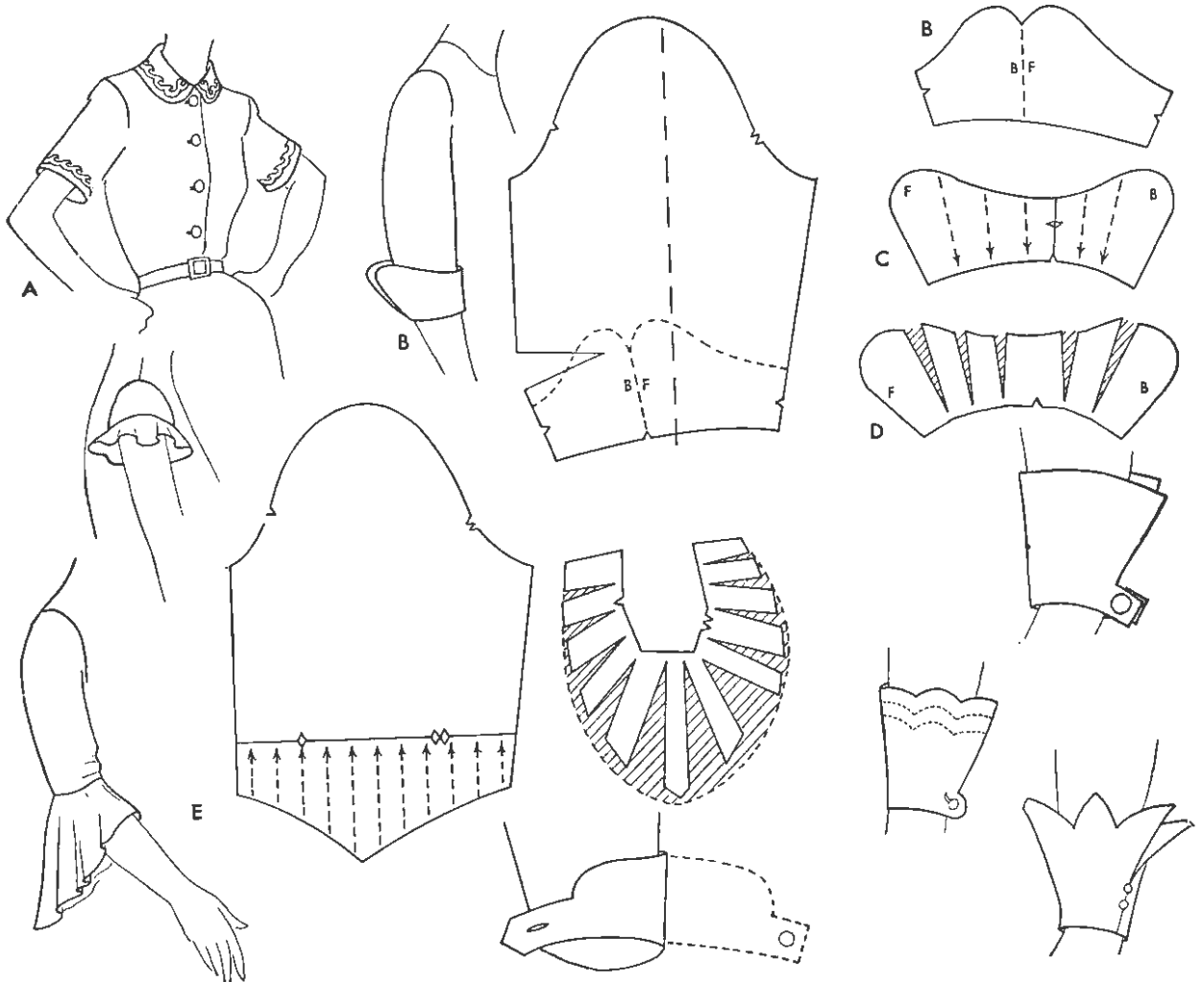


Fig. 142. Cuff patterns.

than half a pattern in determining proportions, widths, and decorative features, and is necessary in developing asymmetrical collar designs.

Determining the silhouette is by far the most important step in collar designing and can rarely be carried out satisfactorily by working with materials flat on the table. Use crayon or scissors to obtain new lines by working on the model. Cut a little at a time. If too much has been cut off, pin on a new piece until the most becoming size and shape have been obtained. Reread page 99.

After good lines have been secured in the silhouette of the collar pattern, details may be developed like slits, points, scallops. There is a fundamental rule in art for us to follow—be sure of good structural design before adding decorative details, and if added, they should enhance not detract.

CUFFS

The lower edge finish of a sleeve needs careful planning to make it complement but be subordi-

nate to the neck or the collar by use of cuffs simpler or smaller in shape; or the cuffs wide and accented with a simple collar or collarless neck; or cuffs omitted entirely, A (Fig. 142). The following require no special directions or have been previously illustrated: hem (Fig. 6); facing (Fig. 101); turned back fold (Fig. 98); shaped section of the lower sleeve (Fig. 109).

A turu-back cuff, B (Fig. 142), may be developed like a collar. It should open on a placket line or the little finger line rather than at the seam. Make a copy of the lower part of the sleeve with elevation in the shape desired—usually narrower but in harmony with the shape of the collar. Close the lengthwise seam and open the cuff on top of the arm where desired near the little finger line, C. To roll slightly, slash and spread from the top to the lower seam line, D. Correct the silhouette. The grain line may be on the top of the arm to match the sleeve or at the underarm seam. Make up in muslin to fit on the sleeve and the arm.

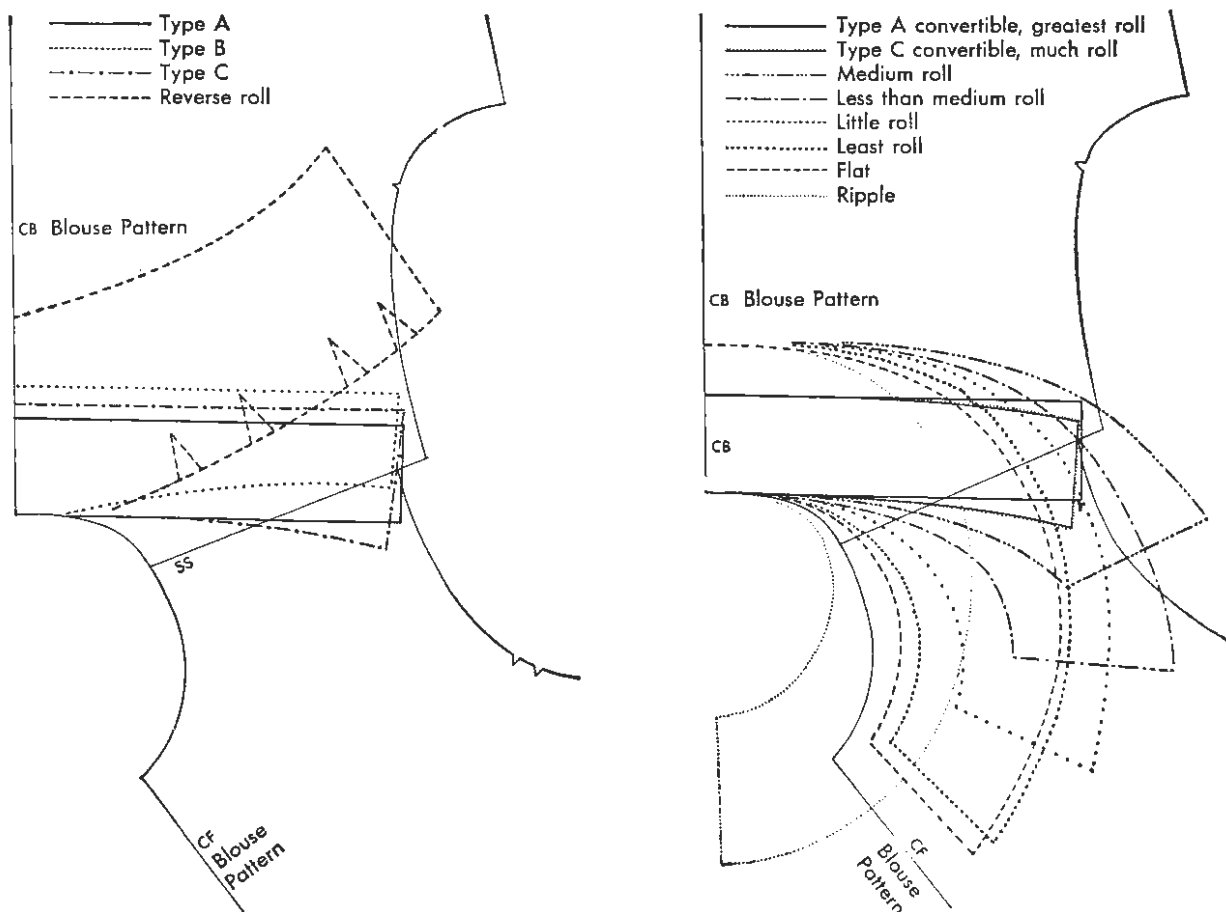


Fig. 143. Summary of principles in collar designing.

For a falling cuff, E, copy the lower sleeve line and extend downward to the desired shape; slash and spread.

Either D or E may be treated as a basic pattern with countless variations in silhouette.

SUMMARY

1. Begin with a becoming, accurately corrected copy of neckline, with all darts removed. Rarely use the uncorrected block pattern.

2. The exact copy produces a facing.

3. Most collars are cut smaller at neck edge than neck edge of garment, so that neck seam will be concealed. (Decrease $\frac{1}{4}$ " on half pattern.)

4. The flatter the collar, the more closely the neckline curve of the collar must follow the shape of the neck, which is a decided concave curve (Fig. 143).

5. The stand is the height of the roll or the distance a collar stands erect in the back up on the neck, measured from normal neckline up toward the hairline. A convertible collar, type B, represents the greatest amount of stand possible—a straight strip cut twice as wide as the stand. The neckline of the flat collar has no stand.

6. A straight strip makes a very decided roll collar.

7. The more a collar rolls the straighter its neckline is.

8. The most extreme rolled collar is cut as a convex curve or reversed from the shape of the neck of the garment—type B and Mandarin.

9. Darts or lapped slashes at the outer edge of a collar pattern cause it to roll more.

10. Slashes spread apart cause a collar to lie flatter or ripple.

11. A rippled collar has a neckline more concave than the neckline of the garment.

12. A lapel and (convertible) collar cut as one may be modified by the same methods and principles.

13. Cuffs may be cut to ripple or roll like a collar. Generally they should be different in size and in amount of detail.

14. To take advantage of the finished edge of a straight strip, like ribbon, lace, or a plaid, for the silhouette of a collar we can develop such patterns as Mandarin, convertible, shawl, band, Tuxedo, reversed, cowl, crossed bands, halters, bretelle, ties, drapes, vests, square necks, and bateau or Vionnet necklines.

Chapter 13

SKIRTS

The silhouette of the entire costume is largely determined by the cut of the skirt. Of course sleeve and blouse lines contribute their share, and the texture of the fabric provides assistance to the cut of the pattern in obtaining the silhouette. Obviously soft bulky fabrics like velvet require folds rather than tailored straight edges; crisp, flat taffeta requires a design that ripples or folds voluminously not one that is pleated flat or worked into straight wrap-around styles; firm crisp linen responds to straight, neat tailored lines, pleats rather than gathers or draped folds; stiff bulky wools, poodle cloth, or felt require few seams, no top stitching and some gores to avoid waistline bulk—with not too much flare in the thicker fabrics; soft satins, velvets, and prints lose their effectiveness if interpreted in too many seams; soft, lightweight, or sheer fabrics like voile, batiste, and flat crêpe lack texture so need fold lines that hang straight and plenty of fullness to avoid a skimpy look; stiff fabrics like moire and damask look best in straight but full bouffant skirts; bias cuts fade out into skimpy, flimsy lines if developed in soft crêpes or cottons but do well in firm, stiff-bodied fabrics. A straight suit skirt requires heavy, firm, not too thick, fabric like a worsted, but a worsted is too wiry and springy to be used in a straight gathered skirt.

The pencil-slim skirt seems the natural complement of a suit jacket, but abbreviated jackets like boleros are balanced on many figures by moderately flared skirts. Slim figures wear the straight skirt better than do large-hipped, rotund figures. However, the skinny, bony-hipped girl should not wear the straight skirt fitted too closely, both

because her overslim figure is accented and because it usually results in a mincing gait due to legs long in proportion to the width of skirt. The large-hipped person is likely to appear barrel-shaped in a straight skirt—a modest flare at the hemline is better to balance her hips. A pencil-slim skirt demands a girdle and good posture. The girl with a prominent abdomen, derrière or sway-back needs more softness to conceal these features, but not bulkiness. A prominent hipbone is concealed by peg-top darts or pockets or gathers. Thick thighs require moderate flare in the skirt such as four gores or six gores without the bulk of pleats and gathers at the belt line.

Slimming lines are obtained by vertical stitching, bands, tucks, pleats, or flanges at CF or just inside the silhouette, by narrow belts and slanting pockets.

To avoid hip emphasis, plan a placket at CF or CB rather than at hip. Full hips are often camouflaged by circularity in the skirt or a peplum. An optical illusion which widens the waist and reduces the hips is obtained by diagonal yoke lines spreading away from CF at the waistline and toward CF at the hipline. A small waist and, therefore, wider hips are accented by diagonal lines converging at CF waistline but fanning away from CF at hips.

A straighter and narrower silhouette in gored skirts is obtained if the side hip seam is cut on a straighter grain than other seams—it is easier to obtain a straighter press, it stays in place after cleaning or laundering and is easier to stitch straight than a bias seam at the silhouette. Additional walking room is obtained for the very nar-

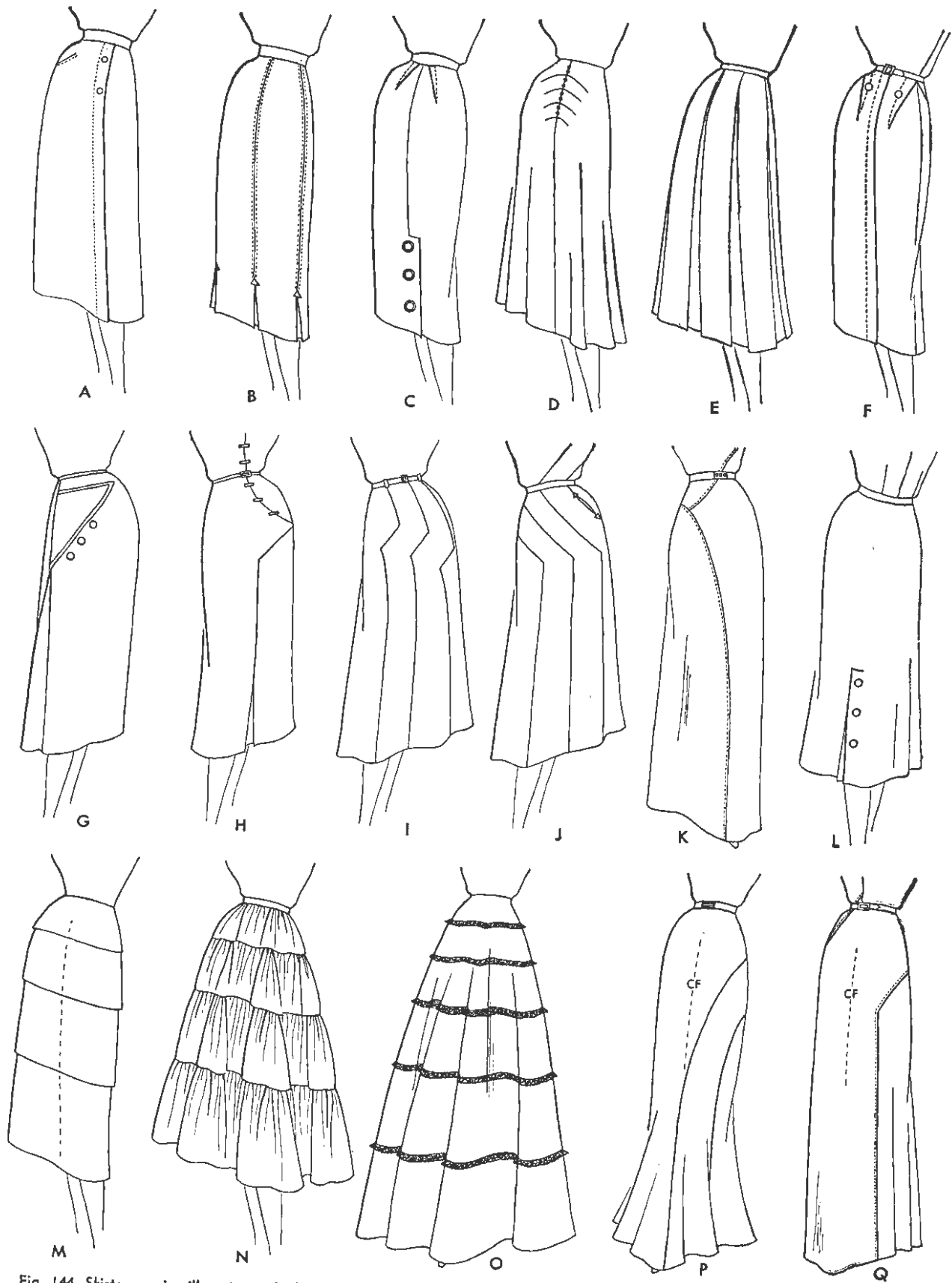


Fig. 144. Skirts vary in silhouette with the fashion based on changes in length and width. A-F, details as to darts, pleats, and flare for walking room. G-L, asymmetric skirt designs require more fabric and attention to details. M-Q, careful space divisions.

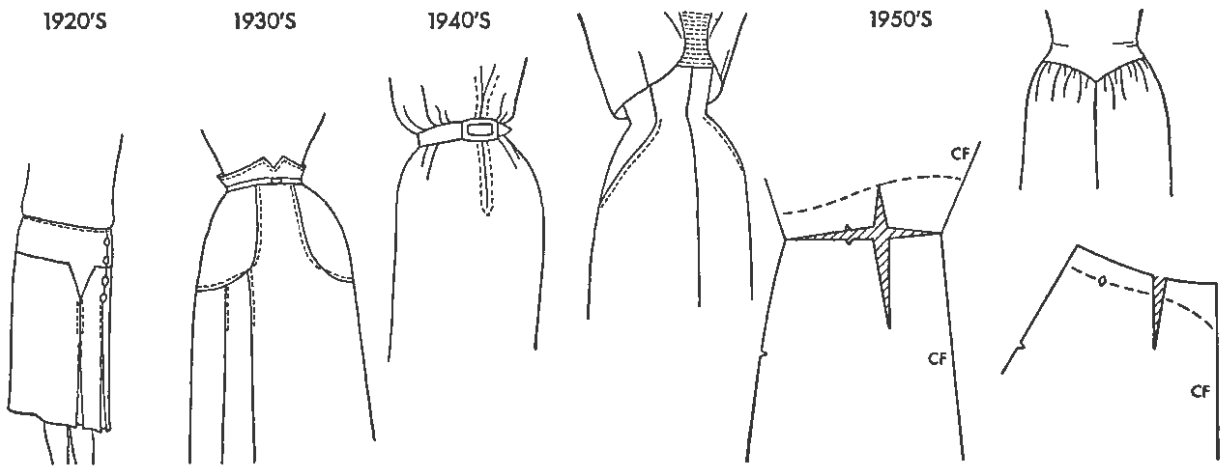


Fig. 145. Fashion may change the waistline location at various times, but the natural location is still the most popular, easier to make and fit.

row straight skirt by the use of kick pleats or slits in seams at the hem line, by cut away features as scallops, by flounces and insets of pleats and godets, by front or back fullness controlled firmly by a lining underneath, and by wrap-around features at front, back, or side, often concealed under aprons and floating panels. The longer a narrow skirt is the more difficult it is to walk or sit either with grace or safety without these features.

Horizontal space divisions should avoid equal width. Gradation of spaces is more satisfactory (Fig. 144).

Changing the Location of the Waistline

The waistline location should be changed for some figures. The long-waisted girl may look better if the waistline is raised, while the short-waisted, chunky figure would be improved if the waistline were lowered, though it becomes a trifle large in girth.

To raise the waistline, as much as two inches may be added for a separate skirt; one inch is more often sufficient. In raising the waistline, the top of the skirt needs flaring out to fit the increased girth of the diaphragm—the lower part of the French-dart blouse pattern may be used as a guide in drawing or measuring (Fig. 145).

The French Empire style of skirt in a dress design may need as much as six inches in raising the waistline by attaching the lower French bodice to the top of the skirt in a semiprincess effect. Such styles usually accent the slim torso and skirt by a wide top achieved by drapery, boleros or puffed sleeves.

For dresses, whatever is cut off the lower edge

of blouse is fitted to the top of the skirt and joining indicated by notches. For separate skirts, the top of the skirt may be shaped into stylized curves, points or semiyoke effects. For a lowered waistline, whatever is cut off the top of the skirt needs to be added to the length of blouse.

Length of the Skirt

The length of the skirt is somewhat dictated by the current mode, as ankle, calf, or knee lengths, but variations occur according to the occasion, purpose or use, the wearer's build, age, and shape of legs. French designers have repeatedly held that mid-calf is more flattering than any length above the calf—especially unattractive are lengths that reveal the back of the knee. Very short skirts generally look better if full. However, good designers, who use especial care in proportions in location of waistline, jacket lengths, yokes, and balanced interest from bust to shoulders, may create smart and attractive costumes contrary to such a statement. It is all the way it is executed! The pencil-slim skirt appears chopped off if too short. Dirndl or peasant skirts, on the other hand, appear sloppy and lack style if too long, especially if not perfectly level or if not distended with stiff petticoats. Short skirts cannot be divided into so many horizontal spaces as can longer ones, but the straight narrow short skirt can be improved by a dipping or broken hem line, long overskirt almost to the hem, a shorter-than-usual peplum, a dipping peplum, shaped or curved but shallow slits, unexpected or concentrated bits of flare, or a narrow cuffed hem.

Evening dresses always seem more formal if floor length, but the vogue may call for ankle

or 10" waltz length both of which are semiformal and girlish. The full length is better for women no longer young.

If your legs are fat avoid too short or skimpy skirts; if your ankles are bony and feet large by comparison, avoid too short or skimpy skirts.

Distended hip effects (Queen Elizabeth style) are obtained by increased length of skirt above the hipline—developed over hip pads (farthingales), wire, or buckram supports. Bustle styles are similar—the bustle may be of wire, buckram, ruffles, or padding for side or back hips—the skirt must be lengthened above the hipline as for prominent derrière or abdomen.

Trains are created by length at the hem line, usually graduated flare from the side seams.

Width of Skirt

Study fashion books and ready-made garments of similar cut and texture to decide on the width of the skirt you are designing. As to texture, we make heavier fabrics into narrower skirts; filmy sheer chiffon, net, tulle into the very full widths; medium weights into moderately full widths. Fill in a chart similar to Table III as a basis for beginning a skirt design.

Such information gives a beginner a good starting point. Advanced students and creative designers after sensing the trend in silhouette would forget the exact measures and proceed by "feeling," because the actual width is based on the texture of the fabric, the build of the person, the blouse design, and the intended use. Both beginners and finished designers are forced to consider the width of material to be used. Homemakers using remnants or making over garments often design the pattern to fit the cloth, but in so doing they must be careful to avoid forfeiting the style originally planned. It is good training to see what types of skirts you can cut from one skirt length of 54" material or from two lengths of 36" material. After your pattern is placed on the cloth, you may find that the circularity and consequent width at the lower edge may be either decreased to fit the cloth or increased for added "swing" in style.

A Good Foundation Skirt Pattern

First select a simple pattern nearest in line or cut to the present mode. Use this year's pattern. Purchase a pattern by your hip measure, alter and

fit in sample fabric as in Chapter 2. Make the length consistent with the present style and your figure.

The style most easily used is a two-gored skirt with normal waistline with one vertical waist dart in front and one in back to keep the crosswise

Table III
WIDTH AT LOWER EDGE OF SKIRTS
Street Length, sizes 14-18, stated in yards

	1939	1953	This Year
2-gored, pencil straight for slim tailleurs with hip darts B and F	1 1/4 to 1 3/8	1 1/2	
3-gored (1B and 2F)	1 3/8 to 1 1/2	1 1/2	
4-gored, no darts	1 1/2 to 1 7/8	2 1/4 to 2 3/4 to 3 3/4	
5-gored (3F and 2B), with hip dart	1 1/2	1 1/2 to 4	
6-gored (3F and 3B)	1 3/4 to 2 1/8	1 5/8 to 3	
Peasant or dirndl gathered or circular	2 1/8 to 4 1/2	3 3/4 to 6	
8- to 16-gored swing style	2 1/4 to 3	3 to 4 1/2 to 8	
Unpressed pleats		2 1/4 to 3 1/2	

WIDTH AT LOWER EDGE OF SKIRTS
Evening length, sizes 14-18, stated in yards

	1939	1953	This Year
Straight silhouette (slit hem)	1 1/3	1 1/4	
Straight with slight flare near hem	1 1/2 to 1 7/8	1 1/2 to 2	
Circular silhouette—firm materials	4 1/8 to 5	4 to 6	
Circular silhouette—nets, chiffons, etc.	6 to 8 plus	6 to 12	
(Slip for circular skirt)		3 to 4	
Informal (cotton) slight flare	2 7/8	3 to 4 3/4	
4-gored, lace, medium flare	3 1/8	3 to 4	
6-gored		3 7/8 to 4 1/2 to 5 1/2	
Gathered straight full	2 1/2	3 to 5 1/2	
Short Waltz		3 to 4 1/2 to 6	

grain at hip girth almost parallel with the floor (Fig. 1). If these darts and the dart created by the seam down over the hips are wide enough at the waistline, the crosswise grain at the hipline may be absolutely horizontal and the skirt more

like a straight tube—difficult to walk in but a good basic pattern. The straighter the tube, the wider the darts must be.

The pattern at the hip should have about $1\frac{1}{2}$ " ease at the 7" line or at the fullest part of the hips. After the seams and darts are fitted, there should be about 1" ease in the waist measure to fit the belt, or $\frac{1}{4}$ " on each quarter of the total skirt pattern. The basic dart at the front will end on the fullest girth of the abdomen 3"–4" long, but for the dressmaker's stylized dart it is better if only 2" or 3" long. The basic dart at the back is about 7" long, but the dressmaker's dart looks better if 3"–5" long.

The vertical hip seam is supposed to follow the silhouette of the figure from ear to ankle so that when viewed from the side it appears about midway between CF and CB. However, in actual width the standard pattern at the waistline is narrower across the back than the front, but wider at the 7" hipline across the back than the front. The back dart is wider, thus longer, than the front. The skirt is longer at CB than at CF by about 1".

Larger bulges at derrière, abdomen, or side hip will change these general proportions and for individual patterns we expect variation from the above standards. For a prominent abdomen the whole front gore will be widened, or for prominent rear hips the whole back will be widened in order to make the side seam appear continuous from the shoulder seam and make the body appear more balanced.

A zipper closing over the hip adds to the bulk so that some skirt makers cut patterns for suit skirts with the side seam slightly forward to match a jacket underarm seam. In making this change the back is widened and the front narrowed so they become almost equal—in this way the skirt may be reversed in wearing, that is by slender straight figures. In general, this change is not very satisfactory.

The side seam by optical illusion even in a straight skirt looks better if there is some flare below the hips—at least 1" wider at the hem. A good way to be sure of a standard flare is to place the two gores so that they touch at the 7" hipline with the CF and CB lines parallel (Fig. 146). The seam of the three darts at the waistline should equal the difference between half the measured hipline and half the measured waistline (allowing the total 1" waist ease and total $1\frac{1}{2}$ " hip ease). The angle x is the hip dart (coucealed

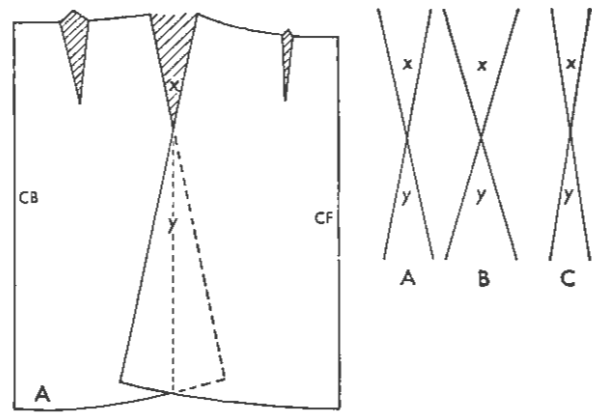


Fig. 146. Front and back basic skirt patterns matched at hip to remove side seam with all hem line flare removed. B shows the wide dart needed for large hips and that such a figure needs more flare at the hem line, while C for small hips indicates that less side flare is needed.

in the vertical hipline seam). Extend the sides of angle x to make the normal flare at the sides, forming angle y , the equal to x . More flare than y will hang in a more or less floppy fold and sag. If more flare is desired in the skirt, it may be secured by other methods such as pivoting the darts or slashing.

This basic pattern may be used to design a wrap-around skirt and other free-hand styles.

Manipulating the Basic Skirt Dart

The advantages of a waist dart in the back gore of a skirt are obvious:

1. The silhouette is kept straight for a slenderizing silhouette—for such general purpose as suit skirts.
2. The straight side seam and the fairly straight waistline and hem line are easier to handle in sewing, fitting, and pressing with less danger of getting them out of shape, since there is little bias with which to contend.
3. The garment will retain its shape longer after cleaning and use. It is not so likely to sag at the sides or cup in the back because of the strain in sitting (unless fitted too tightly in loose weaves).

The basic skirt dart may be removed, shifted, and otherwise manipulated in exactly the same manner as for blouses, explained in Chapters 3, 4, 5, 6, 7, 8, 9. There are fewer traditional changes in skirt designing but there are larger areas in which to develop details and the darts may be moved farther than can blouse darts because there is not such a clear-cut point which one may definitely mark as the center of the bulge.

Techniques we have used in manipulating darts are summarized as follows:

1. Move the basic dart (from hip to waist) by folding and pinning it in then slashing on the proposed new dart line.
2. Pivot the basic dart in any direction around the point of the dart.
3. Erase the old dart shape and redraw the same size and shape in a new nearby location.
4. Change one dart into two or three by re-drawing or slashing and spreading.
5. Change the vertical waist dart into a dart space below resulting in flare for the hem line.
6. Retain part of the vertical waist dart and throw part elsewhere, as into lower skirt area for thick thighs or more walking room.
7. Add fullness by gathers, pleats, decorative darts, horizontal and diagonal draped folds, circularity, and flare by use of basic dart area or by slashing and spreading.
8. Create new horizontal seams by yokes, bands, tiers, and flounces.
9. Create new vertical seams in gores, godets, bands, or panels.
10. Develop unusual styles by curved darts, asymmetric designs, and combinations of the above techniques.

Removing Basic Dart from Skirt Top

1. Make a copy of the skirt back with the dart traced. Fold in the dart to produce a bulge (Fig. 147).

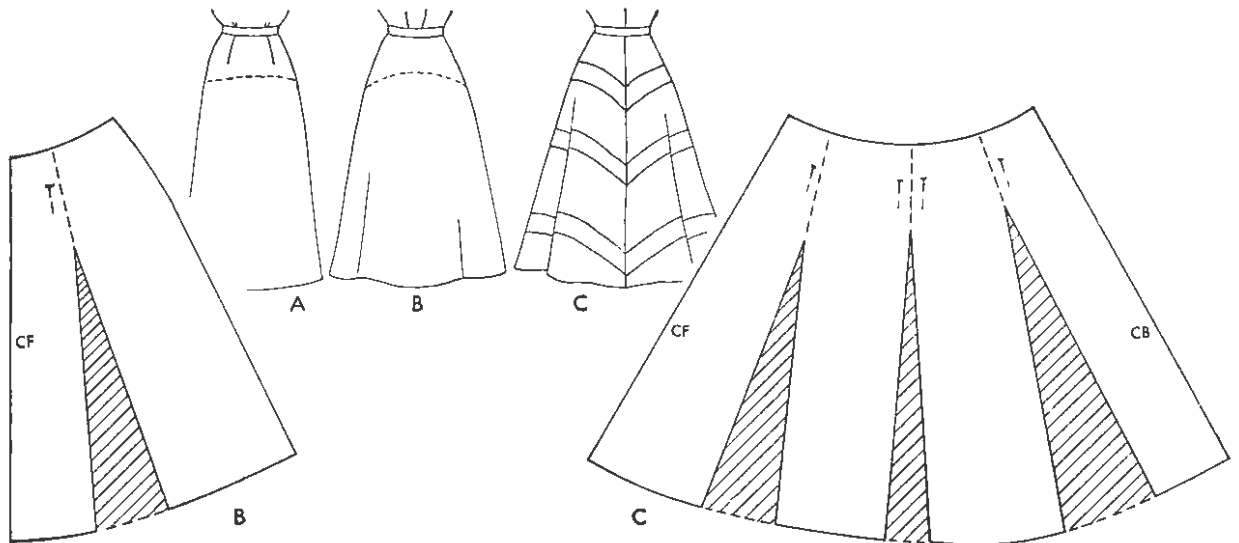


Fig. 147. A, changing basic dart from waist to lower hem. B, drop in grain at sides as a result. C, front and back cut in one piece by throwing all three waist darts into lower skirt.

2. Slash the skirt from hem up to end of dart and spread until flat, A.

3. Note that the side seam is more bias, the waistline more curved, and the lower skirt area wider. When the skirt is made in cloth, you will see that the horizontal grain line is parallel with the floor from the center of the skirt to the point of dart, then drops over to the side seam, B.

4. This pattern is used as the starting point for designing circular skirts, skirts with unusual vertical, diagonal, or horizontal seams; for a four-gored skirt, for eight, ten, or more gores in a skirt.

Basic Skirt Pattern Cut in One Piece

1. Close the basic dart in both the front and the back sections of the foundation pattern. Slash from the hem up to the point of the dart and spread, A and B (Fig. 147).

2. Place the side seams adjoining from hipline up to waistline, C.

3. The three basic darts are now in the three spreads at the hem line, just the reverse of Figure 146, with the three basic darts at the top.

4. Either CF or CB may be placed on a straight fold but the other would be too bias to be practical, and it would be difficult to find material wide enough to fit the pattern. However, the pattern is a good basis for cutting skirts of many gores, for flared, irregular, or asymmetric designs, and for skirts without a hipline seam.

Changing Location of Vertical Dart

Why change the location of the basic skirt

dart? Sometimes it is not harmonious in line with a dart or seam in the blouse, and sometimes the spacing between the two darts in relation to CF or CB or to the side seam accents a person's hips or width. In cutting new gore lines, frequently the dart needs shifting. The easiest way is to copy the size and shape of the dart, erase the dart lines, and redraw the new dart in the desired location. However, you may fold in the original dart then slash on the new proposed line, then over to the bulge and spread.

The dart starting 3" from CB should slant away from CB at its lower end (5" long) about 1/2" more or 3 1/2" from CB to make it appear at right angles to the waistline or radiate from the waistline. However, to suit other design lines in the blouse the darts may be angled differently, but darts too far from the bulge tend to create diagonal wrinkles. In comparing dart location of the front with those of the back, the front darts should be about 1/2" farther from CF than they are in the back as 3 3/4" at the top and 4 1/4" at the bottom, but only 3 1/2" long as compared with the 5" in the back. If two darts are used in place of one, they may be shorter because they are narrower. The two darts must be spaced so that when

stitched the completed dart lines are not parallel but radiating around the waistline, such as 1" apart at the waistline and 1 1/2" apart at the lower end. The above figures are examples only and should be modified for different sizes and needs.

Changing One Skirt Dart to Two or Three

One dart may be copied in tracing paper, then divided into two or three, A (Fig. 148). Erase the original dart (dotted line) and place the new ones as desired, so that they are not parallel with CF or with each other, but farther apart at the lower end than at the waist.

Another method, B, is to:

1. Fold in the basic dart and draw new dart lines to be interesting, well proportioned, and harmonious with the blouse or jacket. The ends of the new dart lines should be on or near the point of bulge or original dart.
2. Slash on new dart lines and spread. Curved darts, C, should be wide enough to slash through the center in construction. See page 44.

Decorative Darts—Added Fullness

Darts, unpressed pleats, and draped folds may

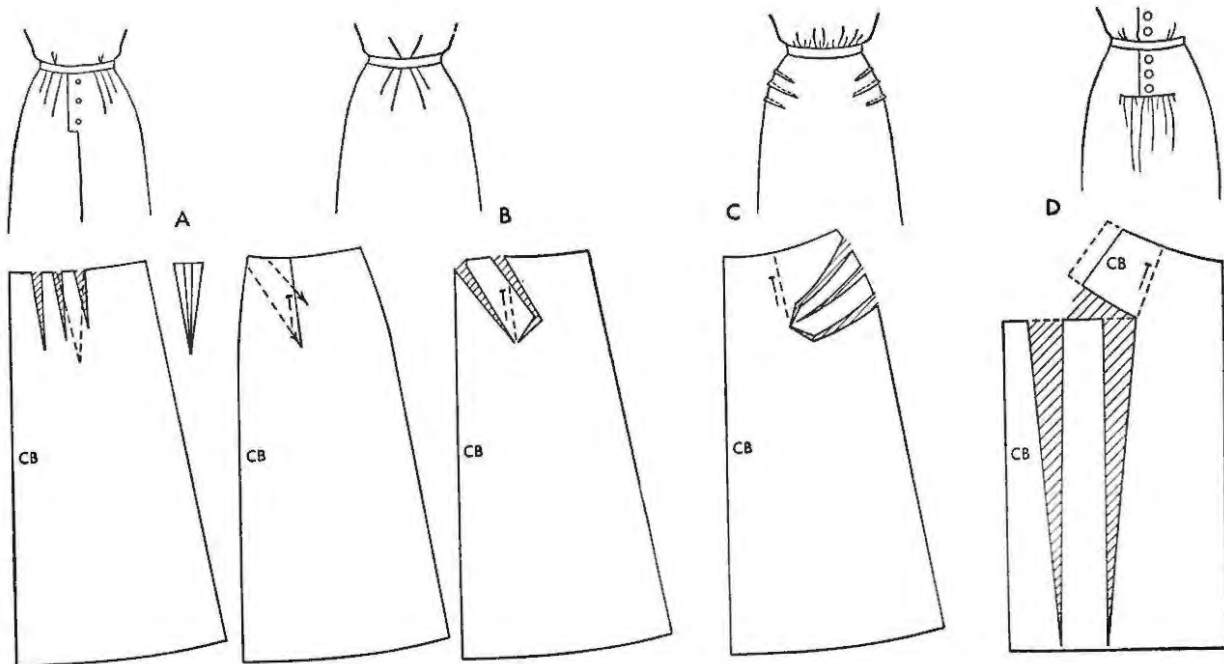


Fig. 148. The basic dart at top of skirt may be arranged in any position radiating about the point of the bulge: A and B, slightly differing vertical darts—A by redrawing, B by slashing and spreading. C, horizontal darts slightly curved from the hip seam. D, horizontal dart slashed from CB.

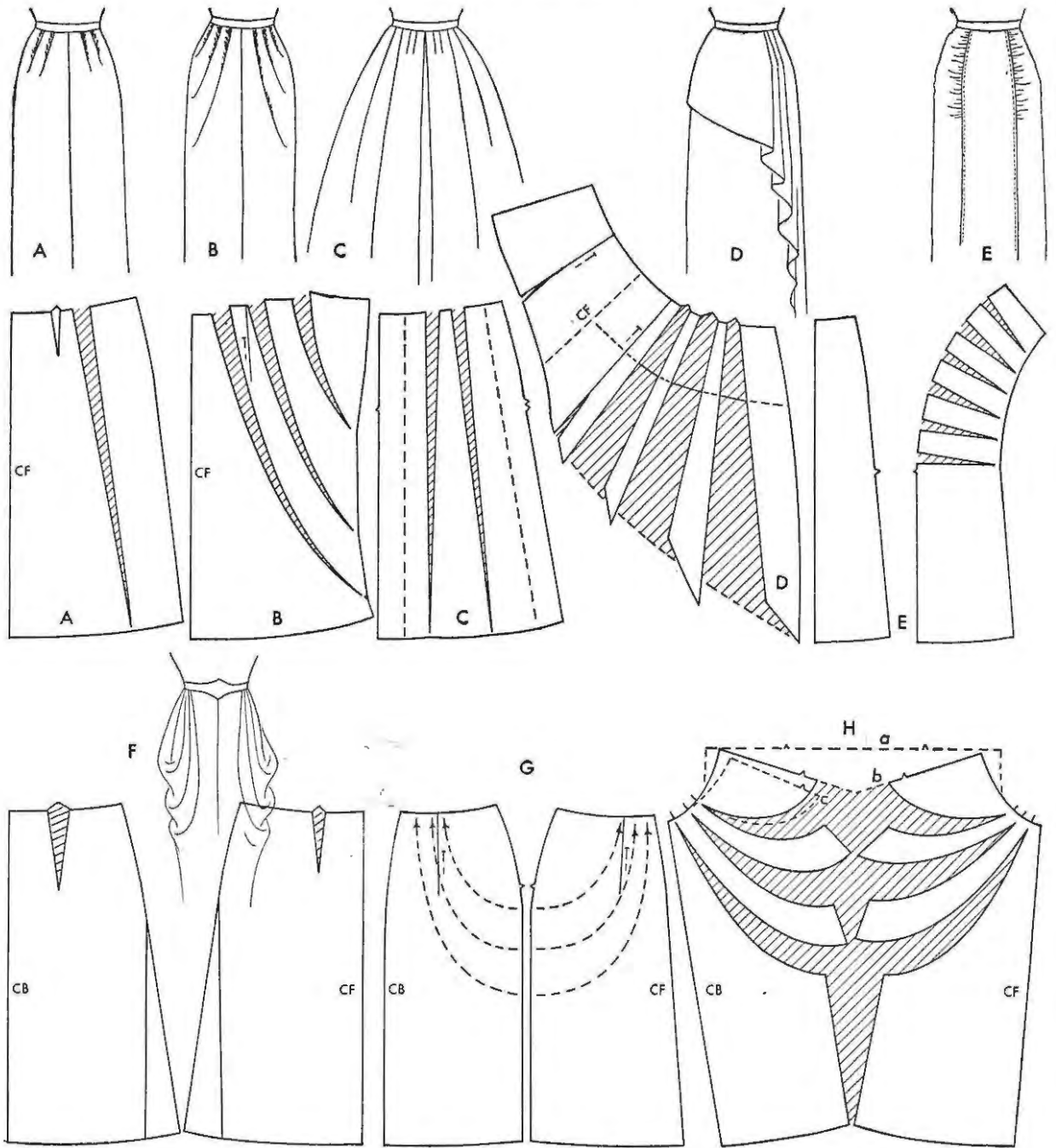


Fig. 149. A, one new dart added to basic pattern for trouser-top skirt. B, three new wider curved darts added for peg-top skirt. C, two new darts added in middle of a gore or box pleat straightens side seams. D, pleated folds added to side drape. E, horizontal fullness added to side front gore for swathed effect. F, horizontal drape or cowl effect at hip, just the opposite location but same principle as in B; G, drawing lines where folds are desired; H, slashed and spread for drape.

be added for decoration, softness, or fullness either to the basic skirt pattern or to gores or sections of skirts after the structural shapes and lines have been formed.

For a straight skirt with more softness at the top, another dart or two may be introduced giving

the trouser or peg-top effect, A (Fig. 149). As in a blouse, sketch the line or lines of the intended new dart or fold, which may be vertical, slanting, or horizontal, A, B, E. Slash on each line and continue over to but not through the opposite side and spread. Trace the new dart space for a

new short dressmaker's dart, or dart tuck, or mark for a fold or unpressed pleat. The spread may be modest as in current skirts, A, or extreme as in the 1914 styles, B (harem, gigolo, and hobble skirts). Fold new dart in before cutting seams.

A dart already in a gore may be made wider to give a more spreading or pleated effect by slashing through the center of it and on to the opposite side, then spreading a little more. Some gores with circularity or pleats appear too plain around the hips, or have their seams too bias. Slashing and spreading from the waistline down to the hem in a separate gore, C, not only creates a dart, dart tuck, or dart pleat at the waist but straightens the seams. This procedure is a device to make adjoining seams have the same angle of bias and also to make them less bias or straight.

For side drapes in tunics and skirts, the slash may go not only to but through the opposite side to give added width at the bottom, D. Sketch the whole elevation, marking CF, diagonal line for overskirt, location of dart tucks, folds, and a horizontal grain line near the hipline. Place on fresh paper, pin in basic darts, slash on new fold or dart lines; spread and correct silhouette lines.

Horizontal gathers, E, darts, or draped folds are used to give hipline and torso emphasis. They depend on a snug fit to hold the horizontal folds in position—usually developed in silk or rayon crepe. In the block pattern, straighten the side seams and pin in the basic dart. Draw elevation and lines for gores or drapery (on a whole front if asymmetrical). Horizontal or diagonal darts or pleats may enter a vertical dart, pleat, or yoke. Try on model to refine shapes and fold lines. Cut

and spread. Pin in new folds or darts before cutting seams.

Cowl effects or horizontal swags across the side hips at both sides or one side are created exactly as are cowl necks or cowl sleeves (Figs. 59 and 107). On a straight foundation skirt pattern, F (Fig. 149), sketch horizontal or slightly diagonal lines for draped folds curving down across the side hips, making front and back skirt folds match at the side seam, G. The basic dart should be pinned in and the side seams straightened. Slash on the folds from side hip on the drape lines up to the waist and spread so that back and front match, H. With the hems touching, the front and back may be spread apart much or little at the top; and the slashes may be spread much or little, as shown by the dotted lines, a, b, c. After the new hip seam (notches matched) is stitched, a weight is attached at the center to keep the folds down in position. Clipping the seam at the end of slashes is the same technique as in Figure 107. After the drapes are complete quite wide godets or narrow gores may be set into CF or CB to provide more walking room and fluid lines. In this illustration the side seams have been omitted, thereby creating seams only at CF and CB. The folds drape better if the hip seams are on the bias: The CF and CB will be bias, also; some straight panel or other design detail may be inserted to break the bias line if desired.

Back or Front Fullness

When fashion wearies of the plain gored skirt, she adds fullness and then stylists argue pro and con as to the relative merits of front fullness and

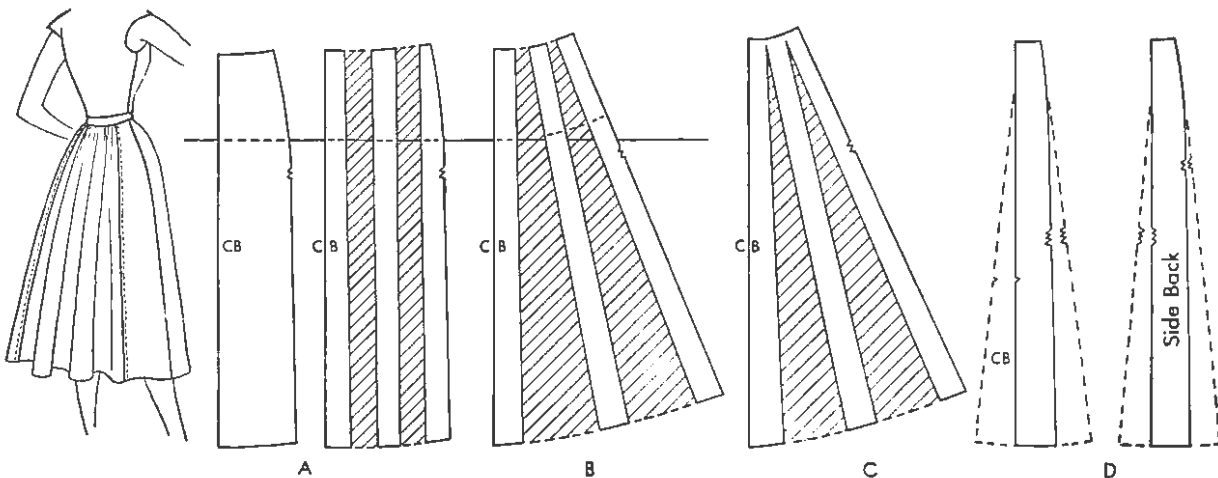


Fig. 150. Fullness concentrated in CB developed in several ways from the back gore or panel. A, slashing and spreading equally for straight gathers. B, spread more—a little at waist and more at hem. C, no spread at waist and more at hem for circularity. D, panel cut into two gores, each with a flare.

back fullness. In either case the posture and shape of the individual concerned must be considered. Back fullness is "easier" to wear, is generally graceful, but the problem of creasing is involved. Front fullness may conceal a tendency to be rotund, but unless smartly handled may give the appearance of a maternity gown. Straight fullness may be secured by simple gathering, shirring, smocking, soft folds, or unpressed pleats. The fullness is more slenderizing if confined to a panel or space well within the silhouette. A snug hipline and true lines may be maintained by having a lining or stay under the full panel to keep it in its original position on the figure, at least well below the hipline.

To make this pattern, simply slash a copy of the gore in question from the waistline through the hem in several places and separate as much as desired (Fig. 150). If no added fullness is desired at the hem, do not separate there, but usually it is spread more or the same amount at the hem as at the waistline, in which case a horizontal hipline before slashing will keep the parts in their proper relation.

SKIRT YOKES

1. Use a foundation pattern with desired waistline and with corrected length. A whole front and a whole back will give a much better idea of proportions.

2. Stand before a mirror and lightly sketch on the front the desired yoke, using the shape and proportions most flattering to you. When the yoke points down at the center front the interest is removed from the silhouette, giving a slenderizing effect. Make the back yoke match the front yoke at the side seams.

3. Place the pattern on the table and correct the sketchy lines. Horizontal and oblique lines should be slightly curved. A horizontal line which in the fashion sketch appears drawn with a ruler is usually a curve following the curve of the waistline. A plain horizontal yoke is usually deeper in the back. If the yoke continues as a part of the front panel, the vertical lines of the panel are drawn with a ruler. After correcting, hold it up to yourself before a mirror to check the effect and correct again. From this point, work with half the skirt pattern unless an asymmetric design.

4. Shorten or extend the basic dart and fold it so that it ends on the proposed new yoke line, A (Fig. 151).

5. Place notches to distinguish front from back and to aid in assembling parts. Cut apart on yoke line, B.

6. Both pieces are flat and the yoke has no dart in it—the dart will now be found in a horizontal position as the seam between the yoke and the lower skirt section.

7. The lower sections may be left unchanged if desired, but usually the purpose of a yoke is to allow one the opportunity of adding gathers, C, or flare through circularity, D, or freedom in a straight-line effect through pleating.

8. The yoke also may be cut into other crosswise or lengthwise sections, or have overlaps with hems and buttonholes, but always the waistline, hipline, and seam adjoining the lower sections are accurately preserved in size.

9. A panel, attached in one piece with the yoke, is treated as a gore of a skirt. As such it may have a side pleat added part of or all the way up, or some flare added to the sides in harmony with other skirt sections.

CIRCULARITY IN SKIRTS

Skirts for sport in various fashion eras have been cut without yokes, yet very circular. Costumes for fencing, skating, archery, and for the stage often show this type. Today many party and square dance dresses are cut circular. Recent fads of the circular skirt cut from a complete circle were popular in skirts of felt, denim, broadcloth, percale, and chambray. The latter fabrics soon sagged on all the bias corners, but the firmer weaves and plastic-coated fabrics remained reasonably even at the hem lines. Wash fabrics do not retain their hem lines cut by this style—for them it is better to use skirt patterns of several gores each with some circularity.

Where circularity is to be obtained within a skirt or gore, have the basic darts pinned in then slash from the lower edge up to but not through the opposite seam line, A (Fig. 152). A technique in slashing is to avoid cutting the lines all parallel, but rather to divide the hem line equally in as many parts as the waistline, so that lines radiate from the waistline and enter it at right angles. Every slash makes a ripple. If many slashes are made, the circularity will be gradual and hang in many folds; but one or two slashes will make one or two deep folds or triangular columns at those places in the finished garment. If you want more circularity in the back than the front spread

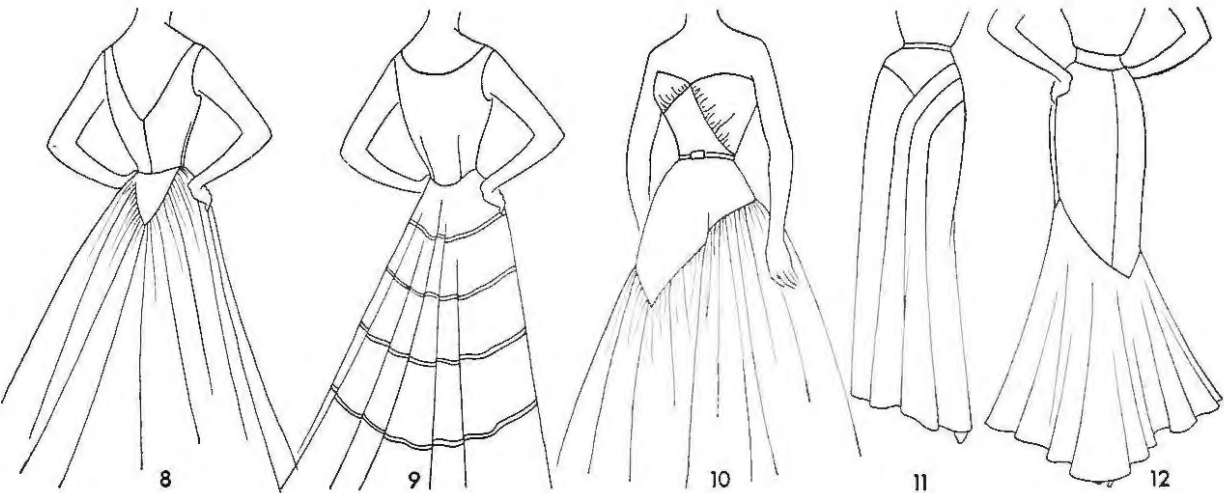
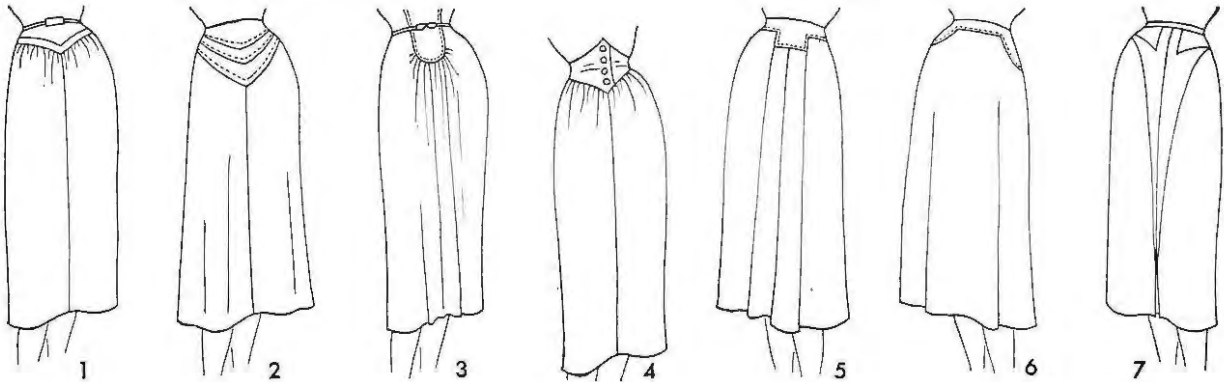
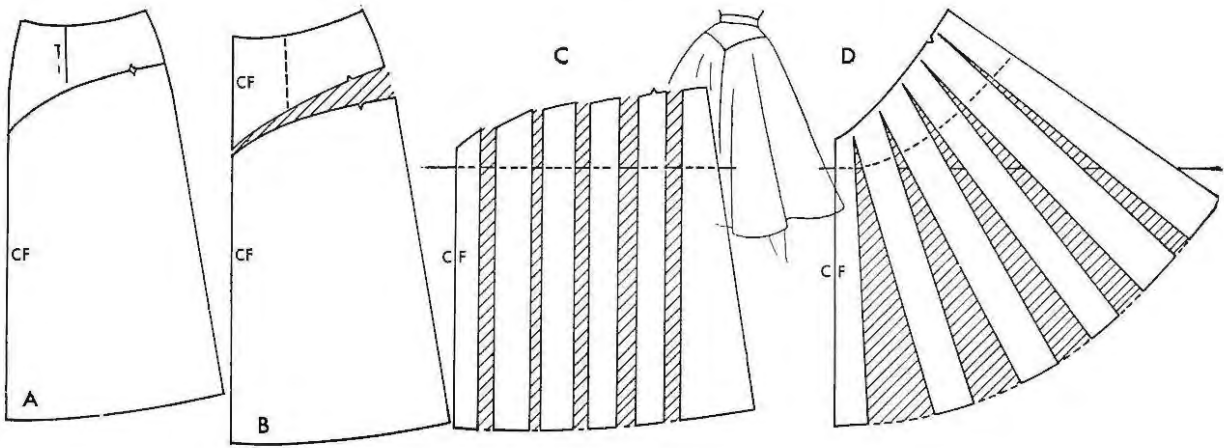


Fig. 151. Yokes offer opportunity to remove the basic waist dart for smooth hips and at the same time much fullness below the hips. A, basic pattern dart folded in. B, yoke cut away leaving basic dart in the horizontal seam. C, lower section spread for gathers; D, for circularity.

the slashes more where desired. A clip at the seam line at the end of each slash in the pattern will accent the flare at that specific place. The angular shape of the waistline must be retained (same principle as Fig. 60).

This procedure throws ripple also above the

hipline. This effect may be reduced in two ways: first, you can remove the 1" ease in the basic waistline by overlapping slashes at the waistline, A and B, (also see Fig. 59); second, you can cut the gore on the bias which will fit the hips more snugly.

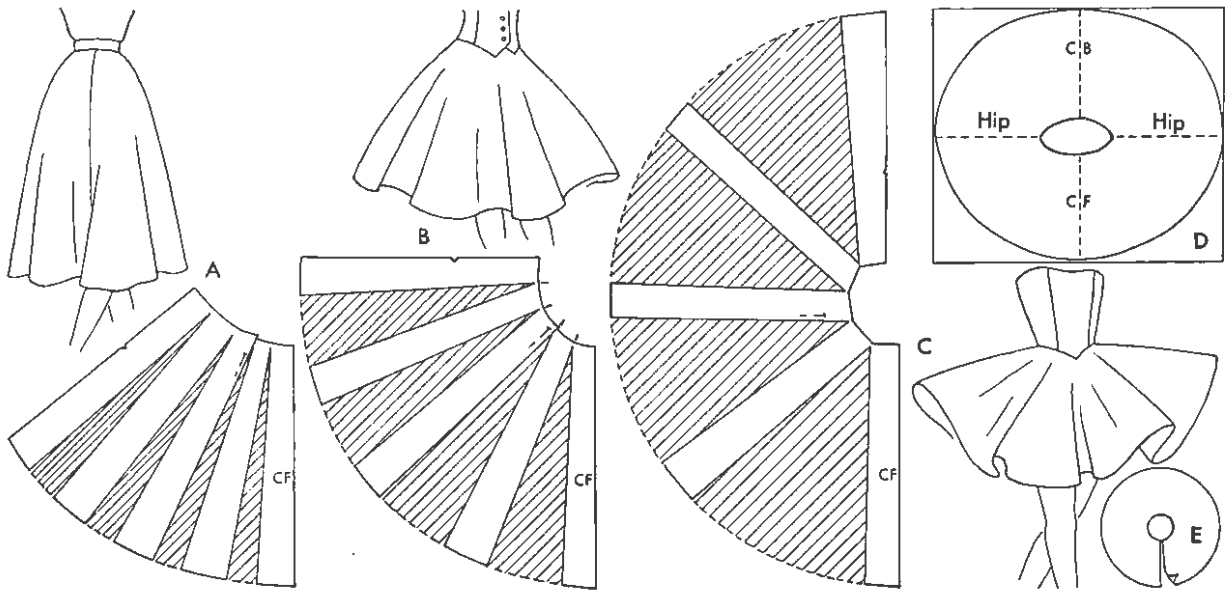


Fig. 152. A, average spread of circularity for four-gored skirt. B, ballerina type of skirt, slashes spread to make whole front a half circle. C, twice as much flare, a whole circle for the front and another circle for the back, cut as E. D, two widths joined and cut for sunburst pleating.

If the slashes are spread apart a great deal, a semicircle is produced so that the two side seams may be cut on the crosswise grain, B. If the cloth is not wide enough, a seam may be necessary down the center front and back.

It is obvious that this is the method used by amateurs (and children, in cutting doll skirts); that is, a large circle with a hole in the middle for the waistline, E, except that in professional pattern designing the waistline is accurately measured by the foundation pattern and the slashes made to come where desired. The former is hit-or-miss designing—our method is designed (planned) designing, D.

In preparing material for a skirt with sunburst pleats, for the waistline cut two half circles (each half the waist measure) with the straight edge of patterns on the selvage, D. Consult a shop that specializes in pleating. There are disadvantages relative to hemming in each case, but usually the circular hem is not cut until after pleating, hence hemming ($\frac{1}{8}$ " width) follows the pleating. It is an expensive skirt to keep up.

For dancing and fancy dress costumes this idea may be carried farther when tulle, net, chiffon, or other airy materials are used. That is, each front or section of front or back may be spread to form not only a semicircle but a complete circle, C. A slash is made on one radius only of the circle,

producing two seams which may be joined to other circular sections, on and on, E.

In all this process retain the original waistline, length, and hem line, and the result will be a skirt which fits without gathers at the waist, yet with "worlds" of flare below. One must be prepared, then, to use "worlds" of material. Such lavish effects are extreme cases and, therefore, should be used in suitable materials and not skimped because of a desire to be economical.

Patterns which seem very circular may not appear so full in material (such as crêpe) because the texture of the material affects the slipping quality of the grain wherever the bias occurs. A good plan is to measure the hem line of a garment of similar texture already made to get some idea of how much spread to produce—otherwise you must be prepared to suffer the consequences of your experimentation. One may measure another dress or a commercial pattern to learn the width of the skirt. Also study and prepare a chart similar to Table III. At times we spread these slashes just enough to fit into the width of material on hand, but of course we may not obtain the desired effect by such skimpering.

Pin on to a new piece of paper and spread the slashes apart still more and cut the new pattern retaining all notches.

Note that the top curve of the skirt section has

been changed in shape or direction, but not in length. As it was first cut from the yoke, this line was more or less horizontal. After slashing to this line and spreading the hem line apart, this curve has been raised to a much deeper concave curve. Also note that if this curve has not been changed in direction, the circularity will then consist of deeper folds over the seam line, not within the section itself.

To summarize, circularity may be added at any lengthwise seam by swinging a new line away from any given point extending the hem line any distance; but circularity throughout the skirt may be obtained only by slashing and spreading; the slashes must be directed to the waistline or yoke line—nowhere else; the circumference seam needs clipping at the point of flare. The more circular the skirt the more circular the waistline.

Conversely, applying these principles to the fit or hang of a skirt, if the hem line of a four-gored skirt pokes out too much at CF, let out the seam there which straightens the curve; or you can shift the flare away from CF over to the middle of the gore by taking a deeper waistline seam at the middle of the gore where you want the added flare to fall. Such shifting calls for a correction in the hem line.

If one does not desire the circular effect to extend up as high as the yoke line but merely to the knees, either the skirt sections must be cut into more gores, each one flared out at the lower side seams, or godets must be set in. Slashing midway into a section of pattern prevents the pattern from flattening out. If one slashes up 12", for example, then diagonally or horizontally over to the side seam, the result will be identical with a line drawn to widen the side seam. The flare will fall along the seam line and not within the section as first cut. The only way flare could be obtained placed so low and without a vertical seam or gore would be to knit the skirt and cast on stitches wherever flare is needed, or make the garment of plastic and mold or stretch it at that point, as we have often done in crêpe paper! Cutting a skirt gore on the bias often helps in throwing in a suggestion of added circularity if it is slightly stretched in fitting over the hips.

Godets

A godet is a section cut from a large circle, having its radius equal to the desired depth of the godet. If cut from a half or a quarter of the circle,

both edges will be cut on the straight of the material. If the godet is either more or less than the true quarter, place the center of the godet on the straight of the material with the two side seams equally bias. The godet may be set between the seams or in a slash (Fig. 153). The slash in the garment where the godet is to be inserted is cut $\frac{1}{4}$ " shorter than the seam of the godet. Use plain or lapped seams, a technique similar to the method of inserting a gusset. The lower edge of a godet is often bound or hemmed narrowly instead of being finished with a wide 2" hem with the rest of the skirt.

Flounces—Circular Sections in Skirts

Certain sections of a skirt are often cut circular and then set in or set on the rest of the skirt, such as peplums and flounces.

Begin with two identical copies of the skirt on which the flounce is to be placed; on both draw lines around the space the flounce or peplum is to occupy. Use a tracing wheel to make them exactly alike. Mark notches or perforations to indicate how this section is to be attached. On one pattern cut out the flounce or the inset and retain these markings.

Slash exactly where folds are desired from the lower edge of the section up to the seam line where the flounce or inset is attached to the skirt proper, E (Fig. 153). Place on a fresh piece of paper and spread apart where each ripple is desired. Sometimes the circularity is so great or the flounce is so long that piecing becomes necessary. Plan the slashes with regard to the grain of the cloth and plan the seams or necessary piecings so that they come in the most inconspicuous place under a draped fold rather than on top, preferably on the grain, and if possible so that they coincide with other construction lines in the garment. Perhaps it would be wise to change the pattern to fit the cloth. Be sure that the slashes are placed on lines where folds in the circularity are to be. A clip in the seam at the top of each fold helps to make the ripples fold in a precise manner. For a series of exact triangular folds, make each fold a separate godet or gore, D.

Peplums

A peplum is defined as "an overskirt hanging like the ancient peplos"; also "a short fitted skirt attached to a waist or coat." If cut in one with waist or bodice, remove from the top of the foundation skirt pattern the desired depth and shape

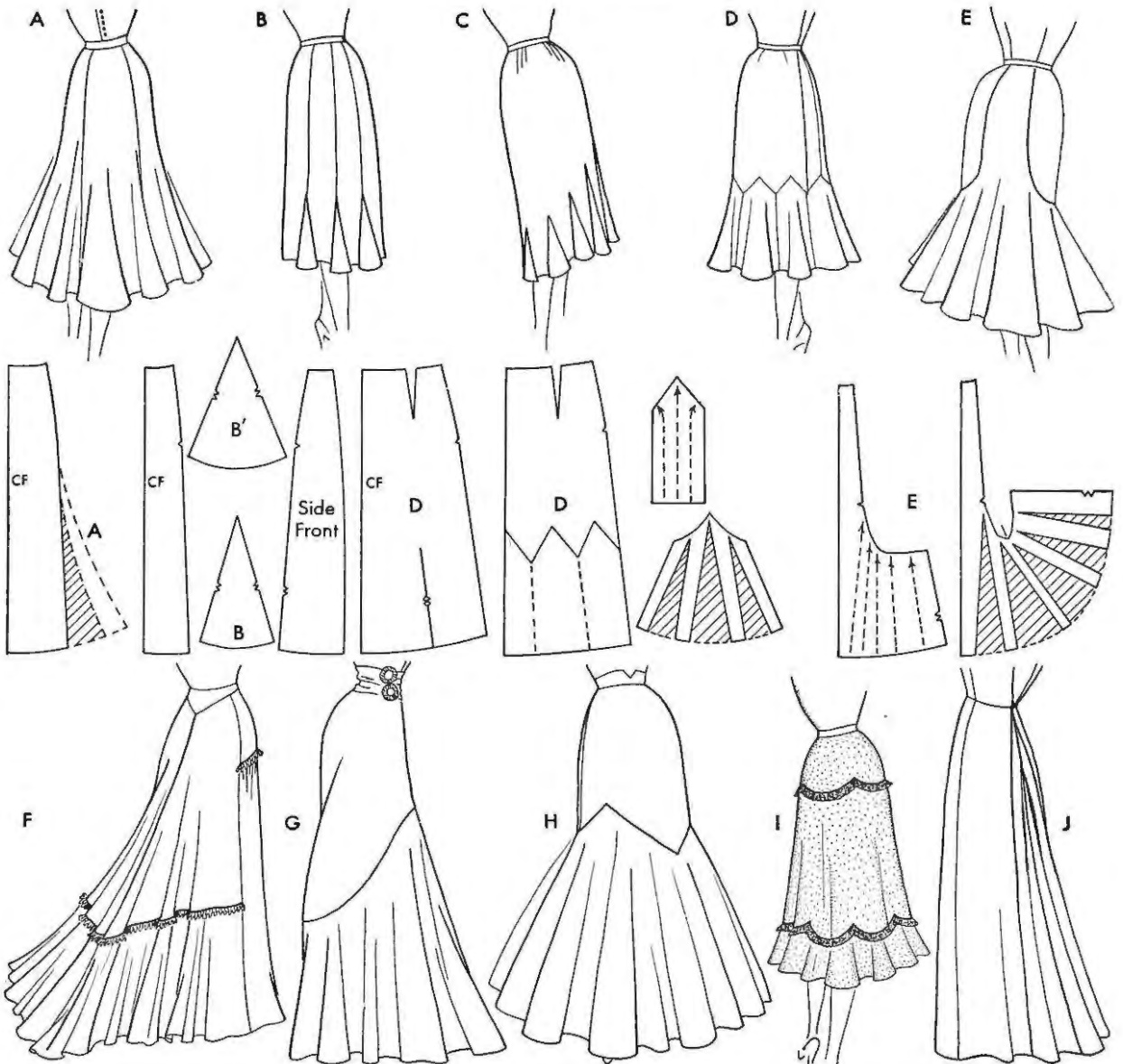


Fig. 153. Flares—godets and flounces. A, circular effect by curving flare added to side seams of skirt. B, a godet inserted in seams; B', same godet with more circularity. C, godet set in a slash. D, inset sections slashed and spread as a shaped godet. E, panel cut in one with lower flounce, slashed and spread for circularity; it could be spread still farther than illustrated. F, chiffon and lace ruffles. G, satin; H, red lace; I, dotted Swiss and lace ruffling on scallops. J, godet in a godet.

of peplum, A (Fig. 154). Sew this short little-skirt (which resembles a yoke) to the bottom of the blouse or belt.

For short peplums the fundamental dart folded in automatically disappears, A. For longer styles, which are often designated as tunics, permit the darts in the back to remain, unless they can be relocated as curved darts, clusters, or circularity.

The best looking peplum is usually not cut in one with the blouse but is cut as a separate short

skirt attached in the waistline seam, concealed under the belt.

If the peplum is flared at the lower edge, B, simply slash the short skirt from bottom to top and spread as desired.

Pleats are often used in peplums. Make a pleated section in a new piece of paper. Place the foundation peplum pattern on top of it and cut out. Or slash the foundation peplum pattern wherever a pleat is desired and separate for each

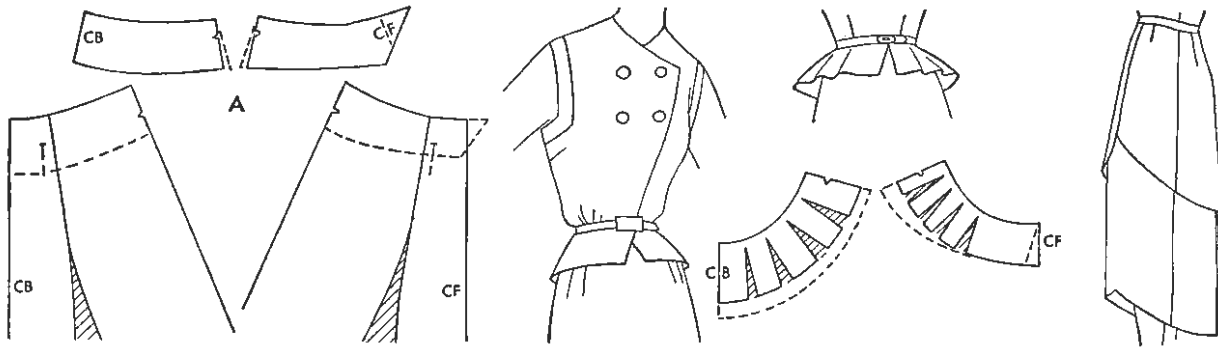


Fig. 154. Peplum cut from top of skirt pattern, A. Pattern slashed and spread for flare, B. Tunic or overskirt of asymmetric cut—because it is long and straight it retains basic darts, C.

pleat twice the finished size of the pleat, whether it is a straight knife or box pleat or a gored flared pleat.

The designer should consider the peplum in relation to the placket of the garment and not make it too complicated. To avoid this danger, the peplum is often made separately and attached to a belt or girdle, thereby aiding in changing the effect of the dress for the wearer—an idea for changing the basic costume.

Some excellent suggestions for peplum designs are to be found in costumes of the seventeenth and eighteenth centuries.

Overskirts

Tunics, overskirts, and aprons are merely sections of the basic skirt pattern. The elevation usually shows a plain tight fitting two- or four-gored skirt, with a full overskirt. All such designs are good for the tall slender figure. Well-spaced division lines are essential. After copying such a section, fullness is added by gathers, pleats, or circularity.

Tiers of flounces or ruffles are usually planned on a foundation skirt. Graduated widths are generally more pleasing than equal widths. Allowance should be made for lapping one over the other.

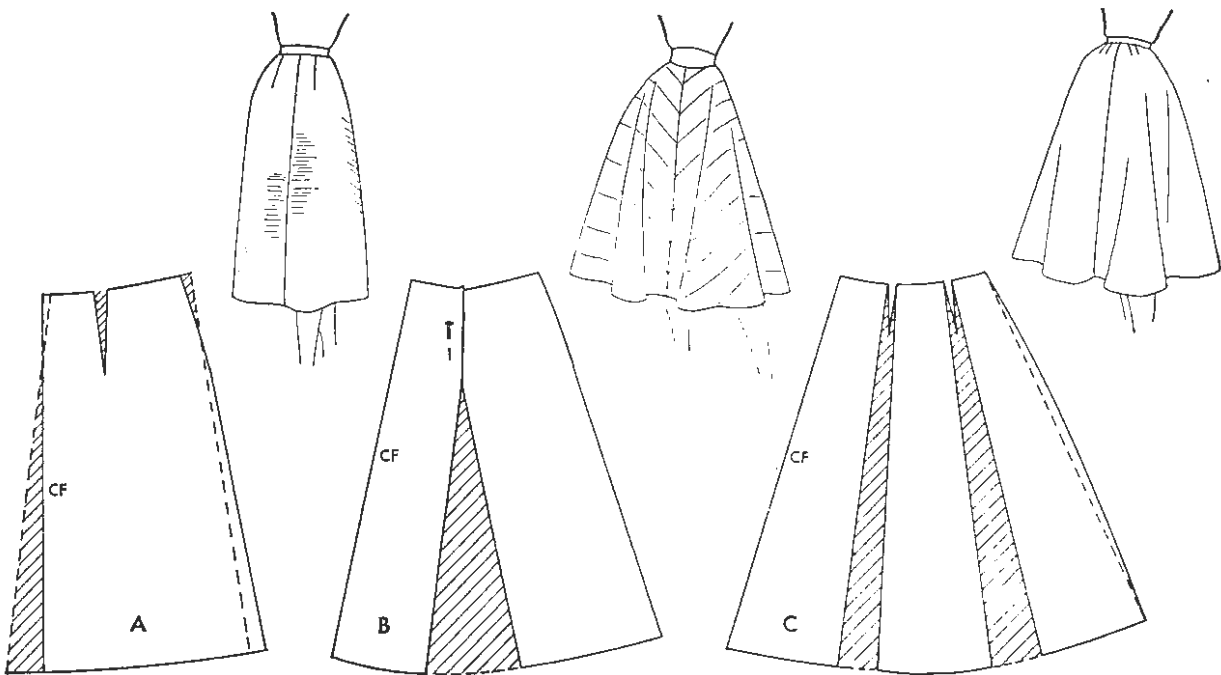


Fig. 155. Four-gored skirt pattern. A, basic front pattern with some flare at CF. B, basic dart thrown into flare and ease over thighs and knees. C, slashed and spread for new darts, gathers, or pleats.

Estimates must be made for hem finishes and method of application—either by a heading or by a plain seam. After these amounts are allowed, then slash and spread equally for pleats and gathers—unequally for circularity.

GORED SKIRTS

Four-Gored Skirt Pattern

Usually the four-gored skirt with seams at CF, CB, and down the hips is so cut to avoid waist darts, or to add more flare than the two-gored pattern affords, especially at CF or CB. It is much favored to form a continuation line from some vertical design line at CF of the blouse such as an inverted box pleat, hem, overlap, or seam. It is useful for patterned fabrics and stripes cut on the alternating bias. If the side seam is on the straight grain with the bias at CF and CB, a good straight silhouette is developed yet with graceful walking and sitting room. It is thus popular as a design for the so-called basic dress especially for large hips or thighs and for the mature figure.

However, there is no reason why one or more short darts cannot be introduced at the waistline as an aid in fitting wide hip girth to a smaller-than-normal waist measure or to correspond with features in the blouse. While such darts may be introduced for decoration, they help to make the gore seams less bias, and therefore easier to make, press, and launder.

1. Begin with the front foundation pattern. Some flare may be obtained by adding 2" or 3" of flare to CF' (dotted line), A (Fig. 155). The flare should begin 7"–10" below the waistline. Make the dotted line, new CF, as long as the original; thus, the hem line will curve up slightly at the lower edge. Better balance is obtained if some of CF is darted out (dotted line) at the waistline and added to the hip seam above the hips with a straighter line below the hips (dotted line). More interest is developed by moving or dividing the one basic dart into several.

2. For more flare and ease over the thighs, close the waist dart and throw fullness to hem, B. If less flare is desired, leave part of the basic dart at the waist and throw part into the lower flare. Use the same technique as in Figure 35. Cut either of these patterns with the side seam on the lengthwise grain.

3. Still more flare may be added by slashing

from the lower edge up to but not through the waistline and spreading. This method causes some of the ripple to show between hip and waist. It is removed by drawing a straight line from waist to hem to replace the curve in the hip seam (dotted line), C. Recall the ease of 1" at the waistline and 1½" around the hip line in the straight skirt. None of this is needed if this circularity in C is added; thus the dart may be overlapped ¼" at waistline and spread more at the hem line to give a smoother hip.

4. The back is developed like the front.

5. Pleats, tucks, or gathers may be inserted in the center of each of the gores in any arrangement or style desired, C. If one spread in the middle of each gore is ¼", a tuck of ⅛" may be taken on the wrong side to create the effect of an eight-gored skirt. If the spread is 4"–8", a gathered type of skirt is obtained but it is less bulky at the waistline than a straight gathered skirt and thus more becoming to large waistlines and hip lines. Such a skirt may be floor length for evening.

6. The four-gored skirt pattern can have several satisfactory grain placements according to the effect you wish to create, A, B, C, (Fig. 156). D is due to careless cutting by the dressmaker.

The four-gored skirt is popular cut on the bias from striped fabric. The stripes should match and be at the same angle. E and F are alternating bias, C is nonalternating bias, thus lacking balance in design; it lacks balance in fit, too; since the warp pulls heavier than the filling, the more bias side will sag if soft, or ripple if stiff.

Six-Gored Skirt Pattern

1. Use the two-gored foundation pattern which has a narrow basic dart in the front and a wider basic dart in the back. Presumably these darts were placed during fitting to create space divisions in good proportion and becoming to the individual figure, and matching the basic blouse darts. To be sure of good proportions, begin with a copy of the whole front or back, not the half pattern.

Fold lengthwise along the sides to give a three-dimensional effect of your figure, A (Fig. 157). Then, divide into three well-proportioned vertical spaces—not equal, as B. If the gore seam is too near the side silhouette, C, the silhouette is accented, the center panel seems too wide and thus the whole figure seems wider. But if the center panel is too narrow, D, the figure appears wider

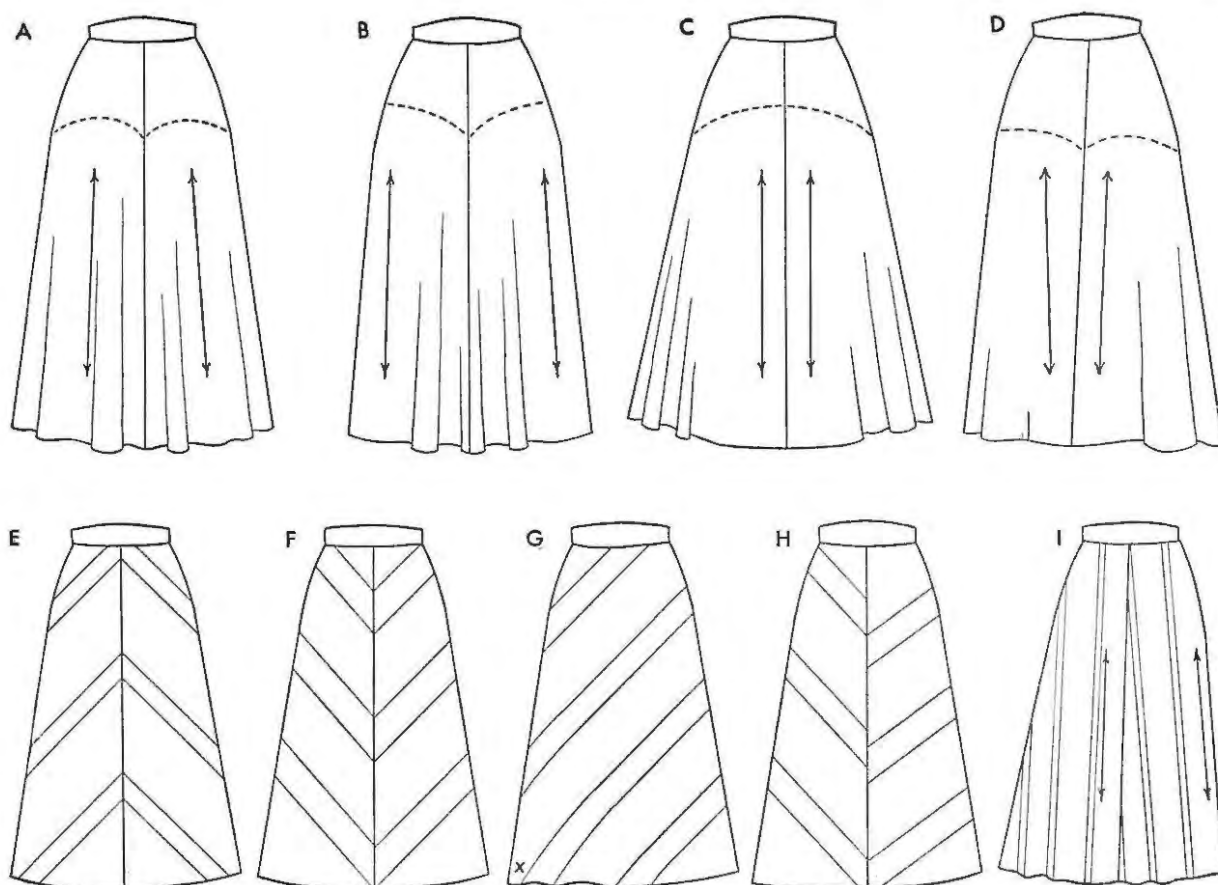


Fig. 156. Position of grain in a skirt. A, lengthwise grain centered in gore so that crosswise grain dips equally at both CF and hips—thus the hem line flares slightly at both CF and hips. B, lengthwise grain along hip seam, hence bias CF gives more flare there and crosswise grain dips at CF. C, lengthwise grain along CF seam, makes hip seams bias therefore silhouette is distended by ripple if of stiff fabric or sags if soft—crosswise grain falls at the sides. D shows unevenness in flare and crosswise grain because ends of cloth were not torn and straightened before placing pattern. E, accents the small waist and wide hip. F, apparently widens the waist but reduces the hips as does B. In both E and F, of alternating bias, stripes (grain) match and so the side seams hang in balance. G, nonalternating bias will not hang in balance. H, same degree of bias was not used in right half as in left half. I, example of the operator ignoring gore notches so that one hipline joins the CF. Even though not cut in stripes, the ripple at the hem does not balance, the flares from the hips do not balance.

in contrast. Take time to get these divisions suitable for your figure, E. Plan the lines to match lines in the blouse. It may be necessary to change the blouse dart or the skirt darts. From this point, work with just half the pattern, F.

2. Draw the vertical gore line *parallel* with the center front, not slanting, from hip to hem, G (Fig. 157). From hip to waist the straight line should bisect the waist dart—you may need to redraw the basic dart in the desired location keeping it the same size. (The technique is the same as in Fig. 32.)

3. Place notches before cutting apart. Generally the grain line in the new side front (or side back) gore is now drawn in parallel to the center front (or back) before cutting apart.

4. After separating, additional flare should be drawn along each side seam from the hipline down to the hem, generally with the flare beginning at a little higher level in front than in back. Ordinarily when balanced swing or flare is desired all around the skirt, the amount of added width at the hem for flare at each seam is equal. For average skirts add 1" to 3" at hem.

If more is added at the edge of the front gore than its adjoining seam, the front will fold over the side front since it is cut more bias. In the 1890's, it was common practice to flare the overlap twice as much as the underlap; that is, 4" added to the edge of the front panel then 2" to the adjoining edge of the side front; at the hip the same, or 5" at the back edge of the side front

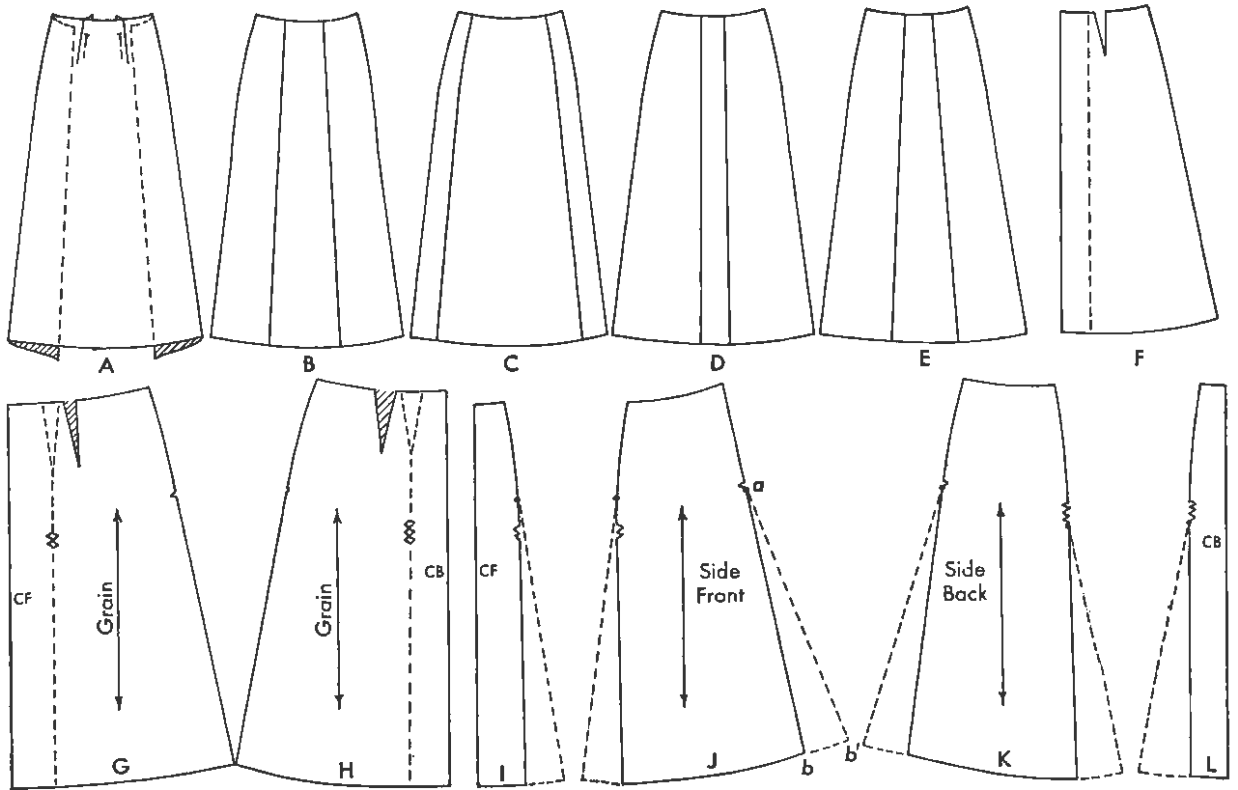


Fig. 157. Six-gored skirt pattern. A–E finding the best proportions. F, draw line for front panel parallel to CF. G, shift dart over to panel or gore line in front and back, H, I, J, K, L, the same amount of flare added to each gore. Make ab' same length as ab , so that bb' continues to curve up evenly.

gore but $2\frac{1}{2}$ " at the front edge of the side back gore; then, 6" at the back edge of the side back gore and 3" at the adjoining seam of the center back panel. Thus a flowing rhythm of folds (unpressed pleats) toward the back was obtained.

5. The new gore line must measure the same length as the vertical line from which it springs. Measure a b and make a b' the same length. At the hem connect b and b' with a smooth curve, J.

6. The center lengthwise of each gore is placed on the lengthwise grain if it is desired to have a skirt with balanced flare at all points. If, on the other hand, it is desired to have one side cling to the body as over the hips, then not so much flare is added and that side of the gore is placed on the straight or more nearly straight grain, with the other side of the gore more bias to produce more of a flare near the center of the figure (Fig. 156). However, for a balanced flare at a given seam the bias of adjoining edges in a seam should be of the same degree.

7. Not so much ease (1" at waist and $1\frac{1}{2}$ " at hip) is needed since the flares provide plenty of

seating and walking space, but always leave some. Generous seam allowances at twelve cut edges provide plenty of places for adjustment to the figure and to the belt to secure a smooth yet easy fit in the hips.

8. For prominent abdomen, have the flare begin higher in front than back; for prominent derriere have the flare start at widest bulge of hips. Slim figures are not so restricted. The tulip, flamenco, Spanish, 1890 skirts, and other flared styles have the flare in the seam cut curved instead of straight; to do this cut a pattern of the first curve you develop on the front panel and use it as a pattern for each of the others, A (Fig. 153).

Many-Gored Skirts

Use a skirt foundation pattern made with waist dart thrown into circular hem, A (Fig. 158), or the one-gored skirt pattern (Fig. 147). Decide on the number of gores to be made. Divide the waistline and hem line with half that many equal parts if there are to be seams in both CF and

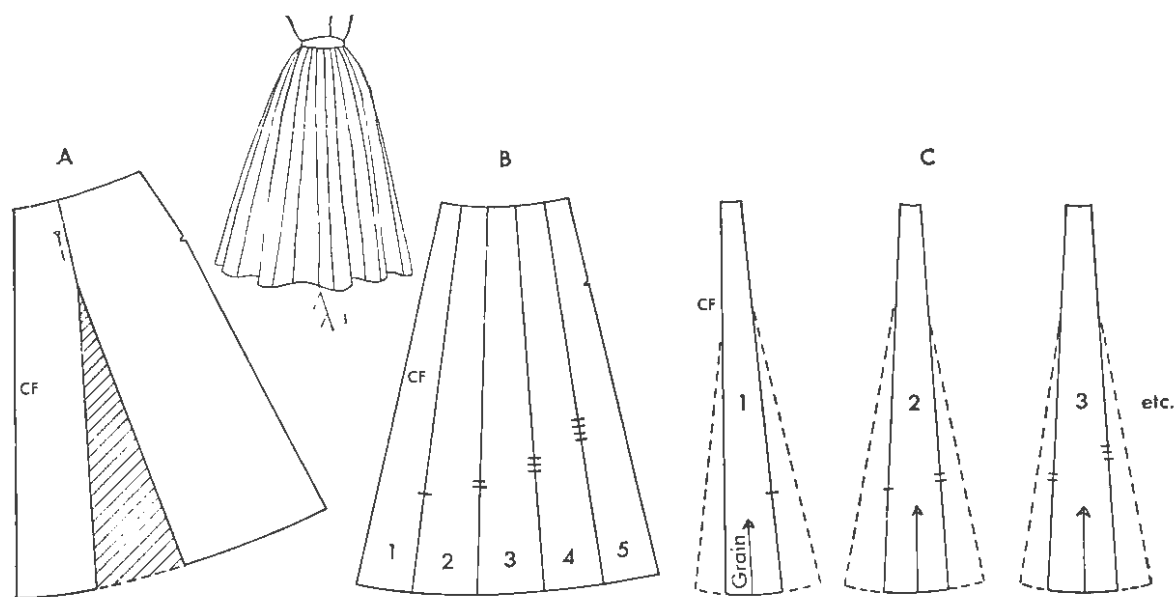


Fig. 158. Many-gored skirt pattern.

CB, B. If the center front and center back gores are on the fold, then make those two each half of the finished width of a gore. If equal division is difficult arithmetic, make the center or back gores slightly narrower, or let the irregular amount fall in the side hip gores to be changed in fitting.

After drawing in the desired gore lines, mark notches to keep in right sequence. Cut along lines and separate. The center line of each gore is usually made the grain line.

After separating the gores, C, increase the width at the lower edge of each gore—just 2" at each of 40 seams will add over 2 yards to the total width of skirt. Use arithmetic and your own ideas to decide on the amount. Decide where the increased flare should begin—at hip, just below hip, or at knees. With a ruler draw straight lines for these added flares. If a regular distended or umbrella type of skirt is desired, make this flare uniform on all gores. (Each straight line may be made into a curve later for tulip styles.) Sometimes more is added at each seam line as you work toward the back especially for a skirt with a train. Be sure that the amount added does not increase the length of the seam by measuring the distance where flare begins down to the bottom of the skirt as a and a' in J (Fig. 157). Then lay this same amount off on the new flared seam line; this will cause you to keep a good smooth curve at the lower hem line. Recall that hip seams should be slightly curved outward to

correspond to the shape of the body, therefore correct the pattern before adding seam allowances. If your pattern calls for many gores, the correction made in the pattern would be infinitesimal, probably best done in fitting or in stitching the seams.

This is a very easy method and lends itself to swing skirts, skirts of eight to twenty gores, and the extremely full or bouffant types of dance frocks. For floor-length skirts, it saves time and work to lengthen the foundation pattern and provide desired hem width before beginning work.

An eight-, twelve-, or sixteen-gored skirt may be developed from a four-gored pattern by dividing each of the basic gores equally.

Complete accuracy results in beautiful well-fitting skirts. So many seams add to the yardage required plus more time in cutting and sewing. The seams need not be too wide.

Skirts Without Hipline Seam

Where no seam is desired over the hip, place (the two side gores or) the front and back foundation skirt patterns together at the hipline and cut as one piece (Fig. 159). From the hipline to the waistline the resulting space is left as a dart, A. A placket may be set into this dart, but not too satisfactorily—it is better to plan an opening elsewhere. The one dart may be converted into two or three narrower and hence shorter ones, B. In B, the gores were all kept straight but may have been slanted out at seam lines before adding

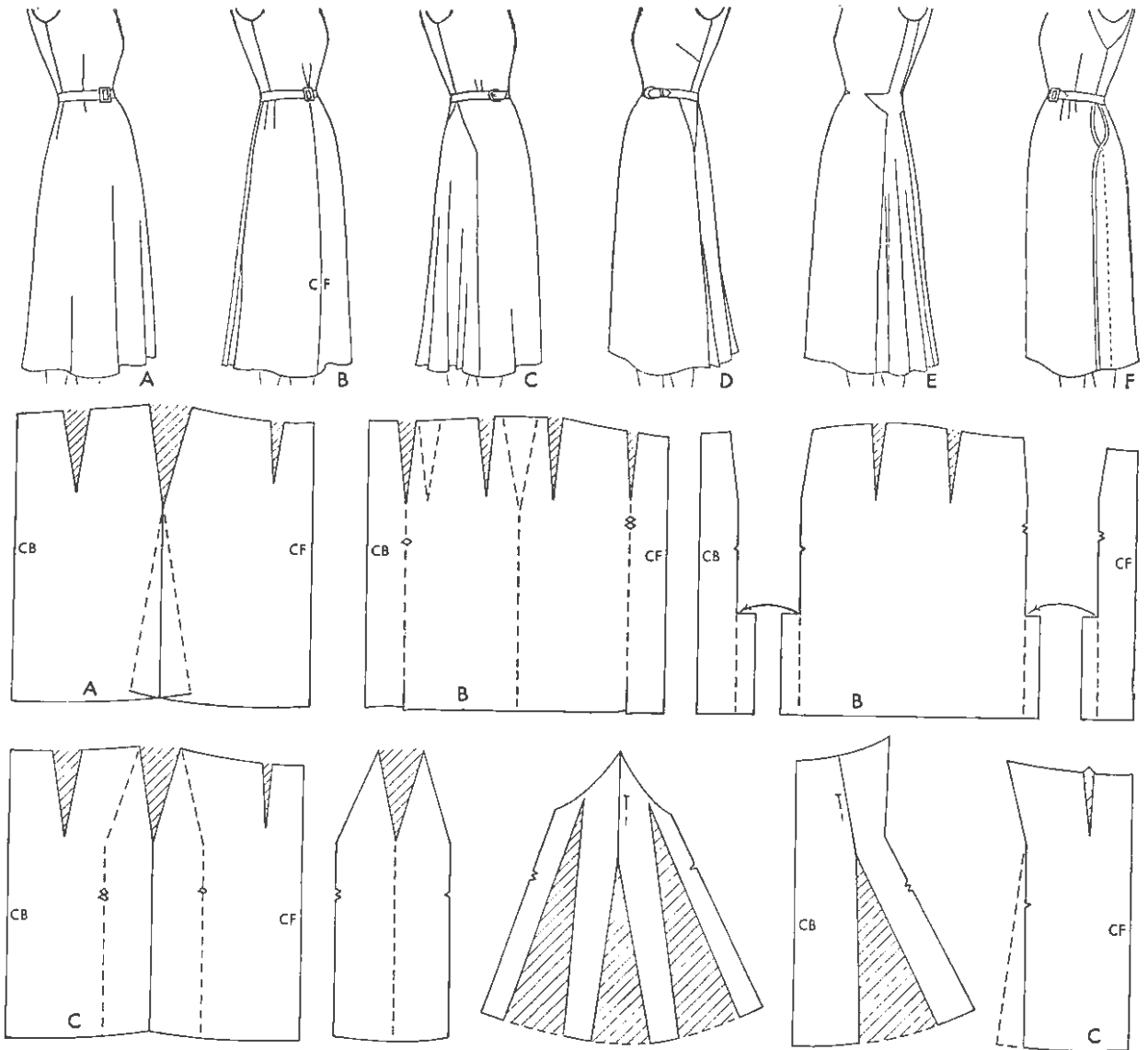


Fig. 159. Skirt patterns without a hipline seam usually give a straight smooth silhouette.

the pleats, as shown in the last gore of C.

If circularity at the side seam is desired or not objectionable the dart could be removed when the side gores are placed together by joining gores above the hipline instead of below; or if already drawn off, fold in the hip dart and slash from the hem up to bulge and spread, C. Either the front or back section may be slanted off as shown for the front gore, or the dart may be closed to secure circularity as in the back gore.

Many asymmetric designs depend on this device to avoid a hip seam. The side panel over the hip may be kept fairly straight for its slenderizing effect, with fullness of pleats or circularity in the front and back panels. This type of design does

not lend itself to easy alterations and is not found in the cheaper lines of ready-made garments as a rule. It requires wide fabric but in a four-gored design it will not require any different width of cloth than the standard four-gored pattern. It gives a straight slenderizing side silhouette.

PLEATS

Pressed pleats give trimness and liveliness to a design when in motion, and freedom in walking. They add interest, slenderizing lines, and a semi-tailored quality. Unpressed pleats give more bulk, but more softness. Slender figures do not need the pleats stitched in place, but larger figures re-

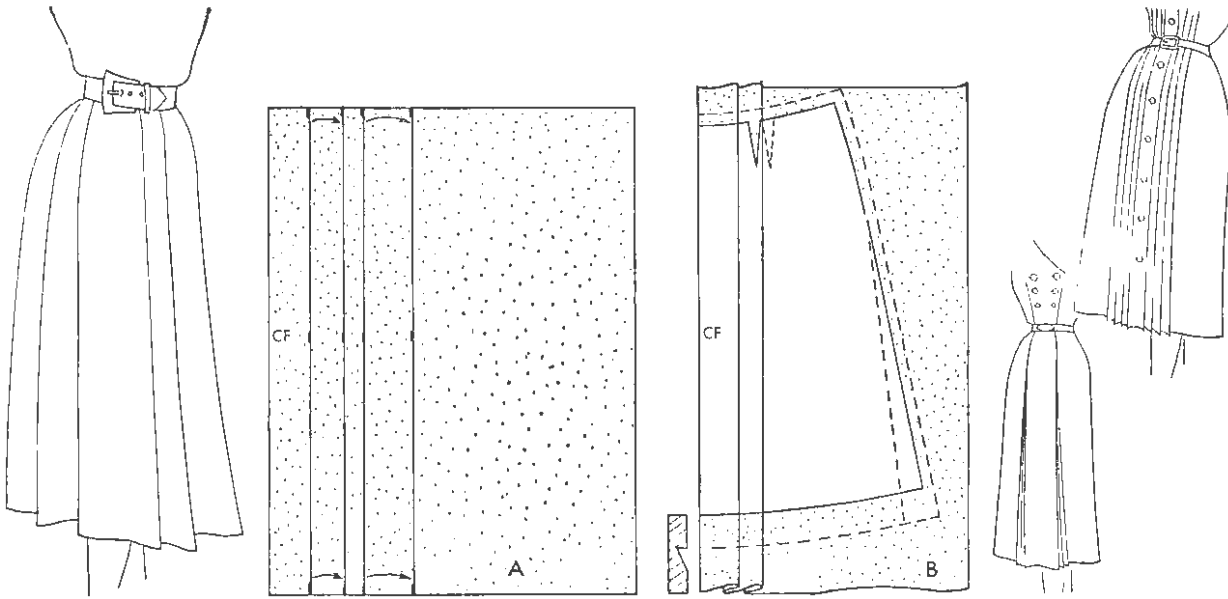


Fig. 160. A few straight pleats can be cut in one gore if placed near CF.

quire stitching above the hipline for flatness. The stitching itself may be decorative; the pleats look better stitched farther down at the back than in the front.

Techniques for measuring and folding were explained in Figures 55, 74, and 102.

Group of Pleats Full Length of the Skirt

Groups of two or three knife or side pleats are often needed to provide walking room in wrap-around, and other straight-line skirts. Consider these problems:

1. How few or how narrow should they be to keep the bulk at the waistline to a minimum?
2. Need they meet underneath (requiring three times the width of the space planned) or could they be spaced farther apart?
3. Where should they be placed to continue some line in the blouse design?
4. Will they interfere with the basic dart?

Use a fresh piece of paper longer than the skirt and much wider (Fig. 160). Begin at one end which is at right angles to one side. Plan a hem if needed, then draw a line parallel to the edge (seam or hem) for the first fold of pleat—check spaces not only at top and bottom but several places in between (paper can stretch out of shape as well as cloth). Draw a second line which the

fold is to meet—twice the distance of the desired pleat width, A. Two-inch pleats require four inches. Wide pleats like this are easier to make and press and set better than pleats much narrower. Fold in the first pleat, before drawing two more lines parallel for the next pleat—it is less confusing and you soon can judge whether you like your planned spaces or not.

When pleats are folded in, place the basic pattern you have prepared on top, B. Draw around pattern, then add seam and hem allowances. Cut out before removing pattern or unfolding pleats.

Add necessary notches, mark grain line, CF or CB, and so forth. On a completed pattern two lines must be indicated, one for the fold line and one for the line the fold is to meet. The back edge of the fold needs no mark for construction purposes. However, it is a line needed when it comes to piecing the fabric. The seam for piecing must always be on this back fold line. After placing the pattern on cloth which is not wide enough slit the back or underfold, add notches and seam allowances on each edge of the slit. Such seams need not be as wide as other seams since there is no strain on them. During construction such seams must be clipped where they enter the hem.

In B, note that the basic dart has been redrawn to be concealed under the last pleat; also, the dotted line at side shows narrowing the silhouette since extra width was introduced in the pleats.

Kick Pleats Inserted in a Seam

Kick pleats are almost necessary in providing walking room in a skirt when the narrow silhouette is in vogue. They may be inserted at the lower part of any or all gore seams. Study the fashion magazines and try the skirt on yourself before a mirror to decide on their depth.

One may use a simple side pleat, an inverted box pleat, or a double inverted box pleat. By accurate drawing of parallel lines, fold in the pleats as desired on a fresh piece of paper. Place over this the two-gored patterns in the desired position. It is less confusing if these are pasted in place so that the gore line falls exactly on the fold of the top pleat. Or simply draw extensions on the gores, B (Fig. 159).

Turn to the wrong side and cut notches in the back folds and show where the seams may be on one or all of these underfolds. Slit folds lengthwise wherever these seams are to come.

The top of the kick pleats may be held in position by stitching or an arrowhead. Occasionally the top of the pleat is supported by a tape tacked to the belt on the wrong side of the skirt.

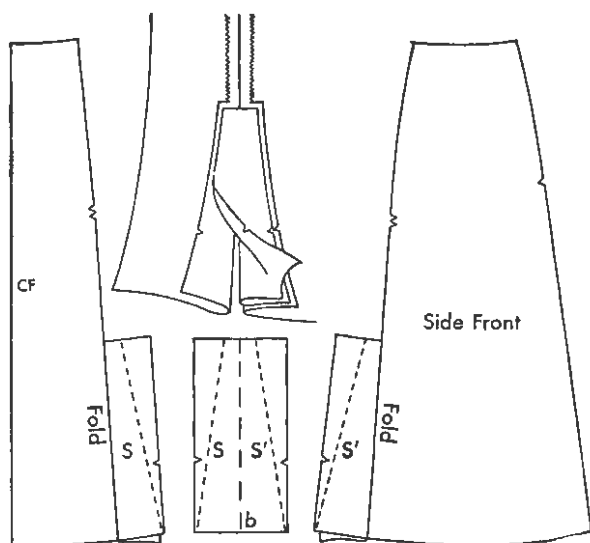


Fig. 161. Gored kick pleats.

Gored Kick Pleats

Since the problem of holding the kick pleats in place at the top is not always solved by stitching, we may cut them narrow at the top and wider at the hem line (Fig. 161).

Turn the pattern with the straight wide kick pleats folded and pinned in position to the wrong side. With a ruler draw a slanting line

from the hem line to the center of the box pleat at the top. Cut a notch for putting together again, add seams and cut on these slanting lines, *s* and *s'*.

This method makes a seam come at the back or underfold of each pleat. As these pleats are gored, in cutting attempt to have the outer fold on the grain, the underfold or seam on the bias. This will insure their hanging flat and straight. It is possible to have these pleats on the straight at CF, CB, or side seams but not on gored bias seams.

If you cut three copies of the gored undersection, *b*, two may be folded lengthwise through the center to form double box pleats.

Pleats Adjoining a Panel and Yoke

Begin with the simple pattern of a skirt having the panel and yoke cut in one piece but with no pleats (Fig. 162).

Prepare a gauge for making pleat lines, which may be equal width throughout their length or slanting to be wider at the hem line. Draw an extension on the front panel to be turned back as the first pleat, A.

On a piece of paper wider and longer than the side skirt section draw two lines for the first pleat, placed far enough over that an underlap is left to be placed under the panel. Fold in this pleat, B. Draw other pairs of lines to make the necessary number of pleats and fold in the pleats.

Place the side skirt section on top of this pleated section in the position desired and draw around it; add seam and hem allowances. Cut out, retaining notches and the underlap or extension to go back under the pleat on the panel.

Fold in pleat on front panel and lap it over the side pleated section in proper place for testing. Check to see that the notches coincide for the yoke and the lengthwise seams and that the lap extension matches exactly as to width and length. Turn to the wrong side and examine for correctness of seams, pleats, and notches.

The pattern is now complete, C.

Pleats to Fit an Inset

Begin with the pattern having inset designed and marked with notches. Cut out the inset section (Fig. 163).

Decide on the number of pleats. Measure the width of the inset at top and divide by the number of pleats. This will give the actual width of each pleat.

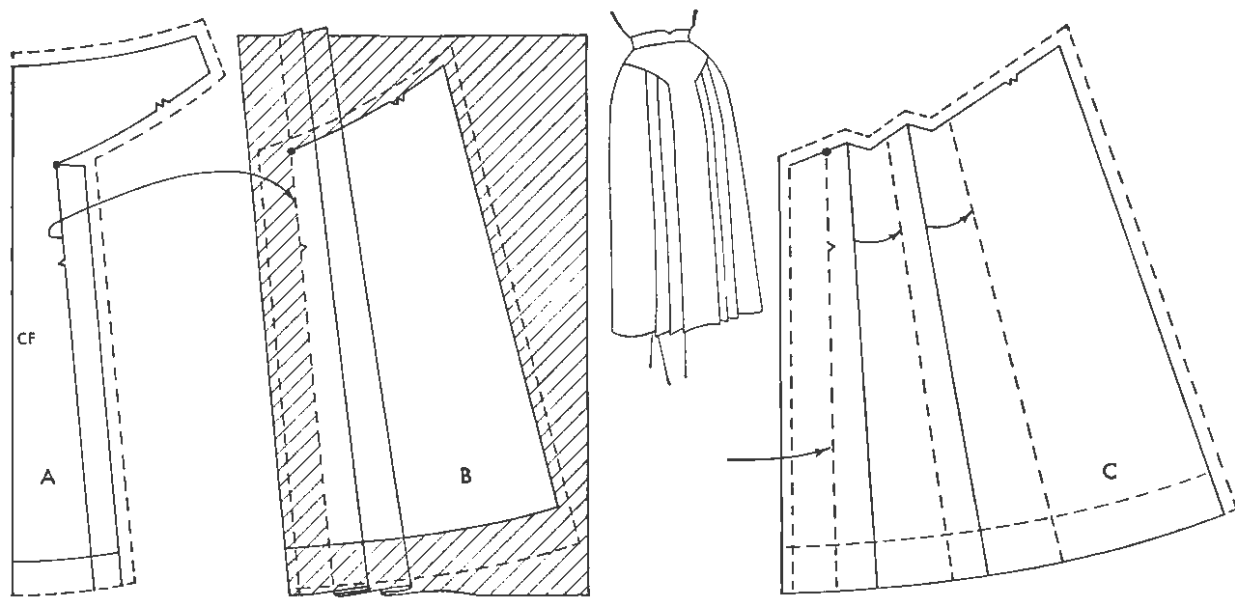


Fig. 162. Pleats adjoining panel and yoke.

On the side of the main skirt adjoining the pleats, A, make an extension from what is available at the center to form the fold which is to lap as a box pleat over the extension on the inset. It is obvious that the pleats cannot be any wider than this amount.

On another piece of paper draw and fold in the pleat or pleats as planned, B; in this case, two box pleats; or one pleat for half the inset. On one side of this pleat add an extension to form the underlap. Place over this the original inset pattern, A. Check to see that the pleats exactly

fit at the corners and that notches have been placed to match.

Draw around the inset pleated section, add ample but accurate seam and hem allowances, then cut out.

In actual construction, make and press the pleats before making the lengthwise seams. Before going on to the crosswise seam, stay-stitch corners and slash diagonally. You may find it easier to keep the crosswise seam in line by use of a lapped seam, but often the bulk of pleats underneath prevents getting an even tension so

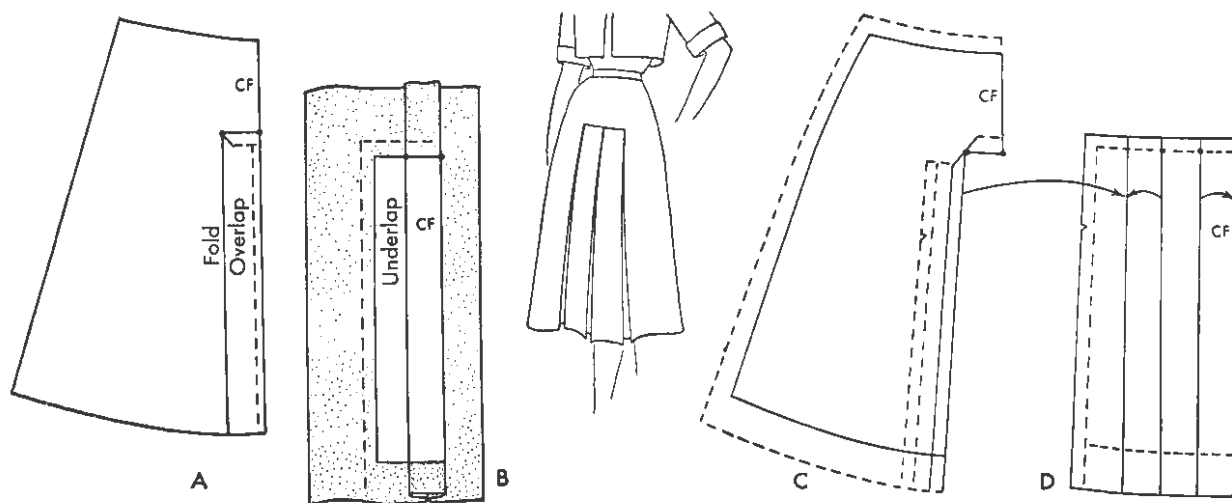


Fig. 163. Box pleats to fit an inset.

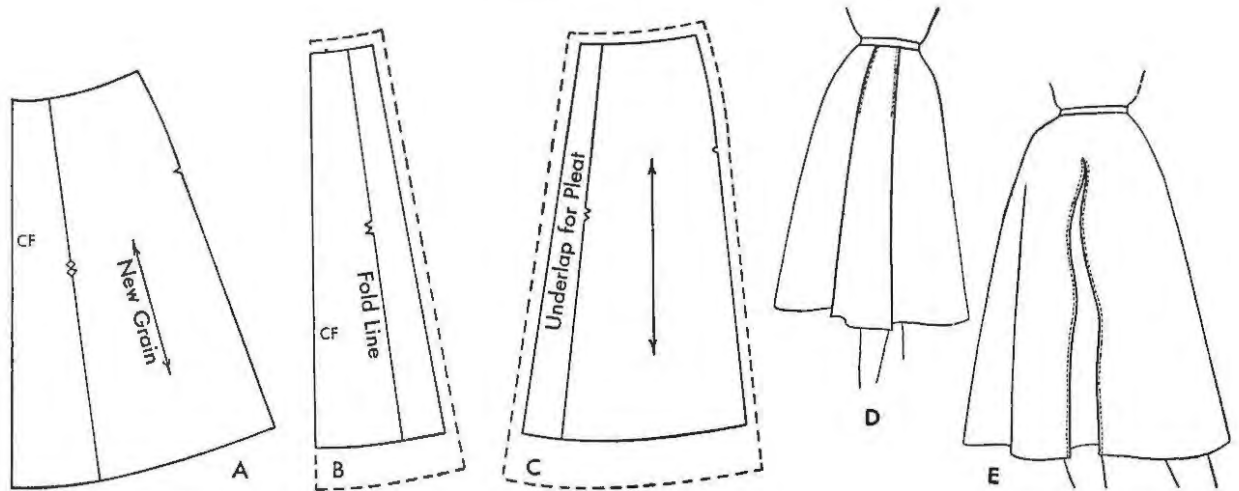


Fig. 164. Side pleats flared in a seam, A, B, C, so there is little bulk at waist but much flare at hem, D, E, white linen skirt with wavy pleat inset at CF—first faced with white and edge stitched, then set over a red underlay.

that a good stitch results; hence many professionals prefer a plain seam even though it is curved, not straight. It is unwise to select for this problem bulky, stretchy, or easily frayed materials. There must be an exacting regard for grain and the shape of the inset should not be too "fancy."

Asymmetric Skirt Designs

When the left and right halves of the skirt are not alike in design, begin work with a whole front or a whole back pattern or both. Fold in the vertical hip darts. Draw in the new darts or yoke as desired. Sometimes it is necessary to work with the skirt pattern in which the dart has been removed by slashing from the bottom up.

All lines placed in the skirt should harmonize with or seem to flow into lines of the blouse. Backs should harmonize with fronts. Horizontal seams as yokes should match exactly at the hip-line.

Side Pleats Flared from Belt to Hem

Flared pleats provide more swish at the hem and less bulk at the waistline. If there is too much flare, the bias fold may not be satisfactory in fabrics that stretch easily or fabrics for laundering. If very bias, the fold may curl when pressed. This style has been satisfactory for unpressed pleats of voile, lightweight crêpes, and mesh fabrics, but is at its best in taffeta, glazed cottons, faille, shantung, and tie silk.

Figure 164 shows the method of making side pleats between the front panel and side front gore in a six-gored skirt, a method which can

be used between any two seams.

1. Use the one-piece front foundation pattern without a dart (Fig. 146) and divide into three well-spaced gores, A.

2. Decide on the size of pleats desired as 1" at waist and 2" (or 3") at hem.

3. Place the front panel on a larger piece of paper, B. With yardstick draw a line for the pleat that is to turn under—1" wider than the notched edge of the panel at the waistline and 3" wider at the hem line.

4. Add seam and hem allowances (dotted lines). Fold the pleat under the panel on the fold line (original gore line) before cutting out to provide a perfect fit at the waist seam and hem.

5. Place the side front gore on a larger fresh piece of paper and draw an extension of the same size and shape as the pleat—1" at waist and 3" at hem, C. Add seam and hem allowances to match the front panel. Cut along the new gore seam only, not the waist and hem.

6. Pin the front panel pleat in position to meet the original seam line of the side front gore. The back of the pleat should match the extension drawn on the side front gore.

7. Cut out the side front gore with extension to match the panel at waist and hem. Cut notches at back edge of pleat.

8. Turn the front gore over on the side front gore, seams and pleats matched. Mark the grain of the side front gore parallel with CF of panel or front gore. In this way the pleat will be the same degree of bias as the extension it fits. The pleat will both press and hang better; otherwise

no seam would be needed under the pleat. In a firm material one pleat like this without the seam might be satisfactory, but if one tried to make a skirt front of five gores instead of three, each one of the side pleats would be more bias than the previous pleats—they would not hang alike, and the side seam would be still more bias.

Piecing Pleated Skirts

Since regular pleating requires three times the width of material for the finished space it occupies, it is not always possible to cut each skirt piece from one width of material.

Study your pattern with all the pleats folded in and seams pinned in as they are supposed to appear when finished.

The back edge of every underfold of a pleat is a possible location for a seam. When there are three pleats on the right side of a skirt, there are three folds on the wrong side of the skirt. Hence each one of these three folds is a possible place for a seam. The width of material used will determine which ones to select.

Cut notches of different kinds or clusters on each fold before cutting lengthwise on the fold to separate into sections.

The underlay of an inverted box pleat often at CF may have a seam on both edges, for economy of cut. The center of the underlay should be on the lengthwise grain. The underlay may be of contrasting material for decorative purposes, similar to a slot seam effect, E (Fig. 164).

Edge Treatment of Pleats

The folded edge of a pleat may be pressed flat or left unpressed to give a soft folded effect. It may be stitched down onto the skirt part way in the more customary manner. In this case pull the machine threads through to the wrong side to tie but do not cut them off closely as they will rip out easily. A more unusual treatment is a decorative design quilted over the pleat. Flaps, wings, pockets, or shaped sections inserted in the seams or under the pleats are often used, but they may make the design too fussy or too bulky.

Occasionally we find a clever designer who robs part of the underfold for a scallop or point pulled out as an extension of the fold. Such decorative treatments are easily done and lend interest (Fig. 83).

It is necessary in using any of these variations

to choose one that will repeat other features of the dress or harmonize with them. On wash dresses, the top fold or pleat may be self (or edge) stitched to insure repressing on the correct grain or fold line. The back or underfold of each pleat may also be edge stitched by hand or machine, sometimes just over the hem (Fig. 167, E).

Inverted Box Pleats in Flared Eight-Gored Skirt

1. Convert block pattern front and back each into four gores (Fig. 165).
 - a. Fold in fundamental dart.
 - b. Slash from bottom to end of dart so that pattern flattens out leaving basic dart as flare at hem line, A.
 - c. Straighten hipline by drawing a straight line from waist to hip and on to widen the hem (about as much as was thrown into hem from dart).
 - d. Fold front half in two lengthwise to make four front gores. Repeat in the back.
 - e. Mark all seams with designating notches. Each gore becomes a box pleat. Cut apart on the gore lines (back but not front is shown here).
2. Decide on the number and size of pleats.
 - a. If fabric is not thick, the pleats may be double or triple. If so have the underpleats slightly narrower so that bulk is avoided both on the pleat line and at the belt.
 - b. To reduce bulk at the hip and waist, yet gain more swish at the hem, make them narrow at the top—1" or 2"—and wider at the hem—3" to 5". We shall plan finished pleats 1" wide at the belt and 3" at the hem.
 - c. The turnunder of the pleat and the underlay on which it lies requires twice the measure of the finished pleat—in this case we must allow 2" at the top and 6" at the hem.
 - d. Since the waist measure of the back is less than the waist measure of the front, the back gores or box pleats will be narrower. We must make the pleats at the top narrower than 1" such as $\frac{3}{4}$ " finished. But we may make them wider than 3" at the hem to give a more backward flow or sweep of line that is both graceful and dynamic, such as 4" finished.
 - e. In any case the underfolds or underfold seams should not overlap. Hence, if the gore or box pleat is $3\frac{1}{2}$ " wide at the top there

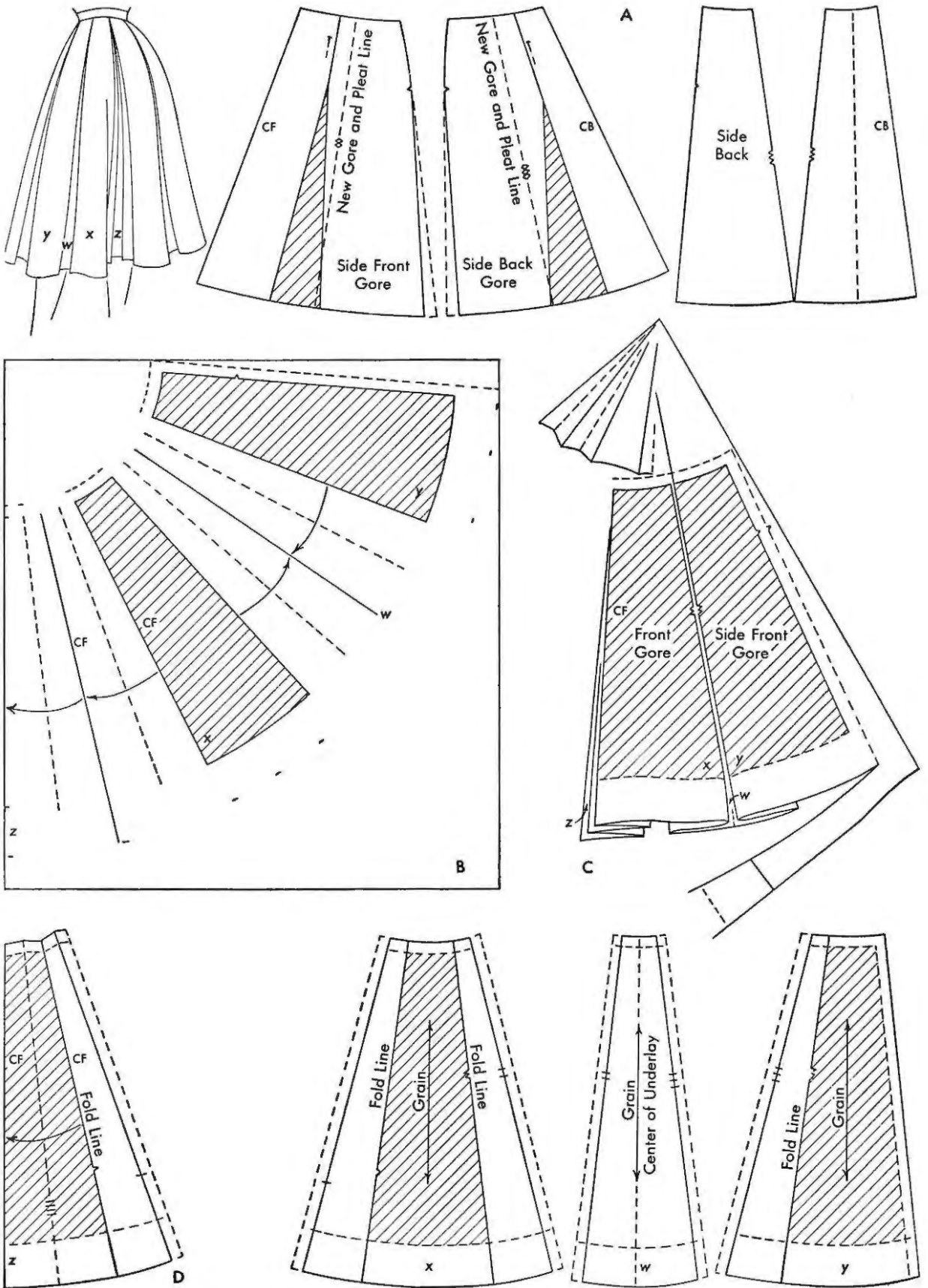


Fig. 165. Steps in making a flared box pleated eight-gored skirt.

is not room for a 2" pleat turned under on each side. There is room for a 1" pleat plus ½" seam on the underfold if a seam becomes necessary—in fact, the pleat can be increased to 1¾" if desired. (We shall use 1" because it is less confusing for the reader.) Check the hem line in the same way.

3. Make pleats in fresh paper before cutting, B.
 - a. In this skirt there are two pleats at each edge of CF inverted box pleat, but only one on each side of the side box pleat. (None is planned at the hip, but one or two could be introduced there also, with the placket worked out to fall under a pleat.)
 - b. On a fresh piece of paper longer and wider (almost two times wider) than the original skirt pattern, begin by marking off CF length (plus top seam and lower hem if desired). At the top mark a point 2" over and at the hem 6" over. Connect by a ruled line for the first pleat. Mark over from there another 2" (or 1¾") point at the top and another 6" (or 5¾") point at the hem, connected with a ruled line for the second pleat.

Crease the first line then bring it to meet CF line, thereby creating the first underfold (dotted line). Crease the second line and bring it to CF to create the top pleat and its underfold (dotted line).
 - c. Place CF of gore x on the two pleats just made. Pin or Scotch-tape in place. Draw around the gore including notches. Add seam and hem allowances.
 - d. At the back edge of this gore (two notches) draw a line 2" over at the top and 6" over at the bottom to form a pleat. Fold in. The line just drawn is the center of the underlay, w. Draw another line 2" over at the top and 6" over at the hem; on this place the side front gore, y, so that the front side with two notches is exactly on the fold. Pin or tape in position.
 - e. Complete seam and hem allowances, and cut out, C.
4. Prepare pattern for use.
 - a. Open out pattern still in one large piece and place on proposed fabric to decide where seams should occur to be most economical. Each successive pleat has become more bias until the side seam is on the crosswise grain or almost so. In many fabrics the

effect would be bulgy, sagging, or disturbing in design.

- b. In general a seam down CF, as z, is not attractive, therefore the best place for a seam is at the back edge of any underfold (dotted lines). In D, we cut the first pleat in one with the underlay z, but it could have been separated on the first dotted line (with four new notch marks); then the fold line of the first pleat would fall on the same angle of bias as the fold lines on x. In separating the underfold (with the four new notch marks) be sure to add a seam allowance on each side.

If the fabric is wide enough, the z section could be left on the x section to be cut all in one piece. If the center of the gore of box pleat is kept on the lengthwise grain, then CF will be off grain, necessitating a seam there. Several skirts have been cut that way, and the seam was relatively inconspicuous because of the excessive fullness.

- c. If grain lines are placed in the center of all gores or box pleats, and underlays, the skirt will hang beautifully.
- d. If there is material and if you like more circularity, the center of each gore or box pleat may be slashed and spread for greater width. Likewise some could be folded out to fit your cloth.

Box Pleated Skirt—Narrow

The average figure looks good in a box pleated skirt not so full as the regular kilted three-layer pleats, which reduces yardage and bulk. It may be developed from 2, 2½, or 3 widths of 36" material as crash, denim, gingham, linen, crêpe, or light-weight flannel. The pleats are somewhat skimpy at the hem, therefore better unpressed but if you use more widths of fabric they may be pressed. Make seams first to convert fabric into a tube. (The last seam may be basted or pinned.)

1. Plan twelve box pleats at the waistline, six in front and six in back (three in each half section) of the skirt (Fig. 166).
2. Use foundation skirt pattern with dart thrown into the lower hem line.
3. Divide the front and back each into thirds at waist and hem. Use notches and label parts as 1, 2, 3, 4, 5, and 6 from CF to CB, or as front panel, side front gore, hip front gore, hip back gore, side back gore, back panel, respectively. Cut

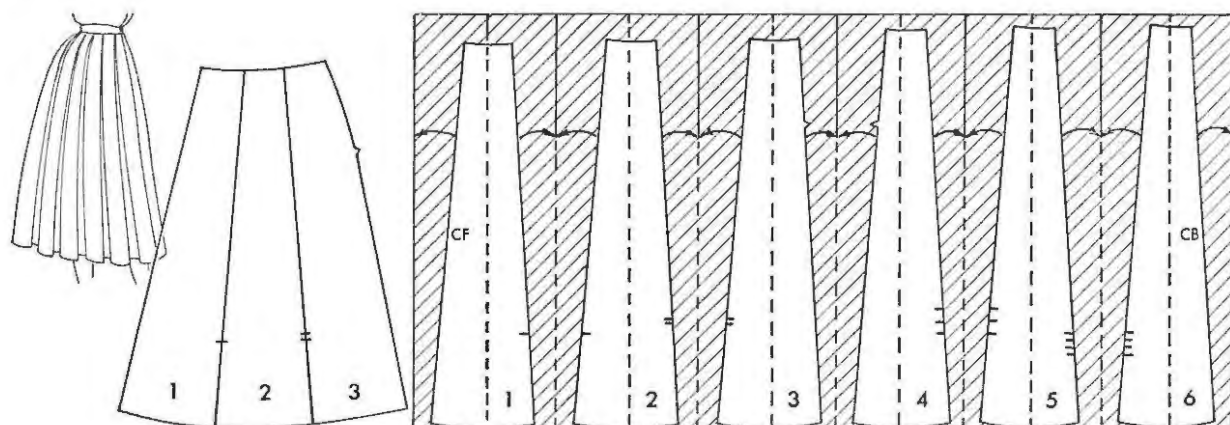


Fig. 166. Box pleated skirt—narrow; to fit your cloth.

apart on these lines. Crease each section in half lengthwise as the grain line marking. The back sections will be slightly narrower than the front.

4. Use paper to develop the pattern. Have it longer than the length of the skirt at CB, plus seam and hem allowances, and the width of the seamed fabric or tube.

5. Pin the gores in order on the paper. Keep the lower hem line curves as even as possible—they will be practically straight with the hem or edge of paper. Spread so the spaces between gores are equal, but CF and CB spaces half as wide. Check to have all grain line markings parallel with each other and the edge of the paper.

6. Draw around the dart spaces thus left from waist down to hem. These lines will be fold or pleat lines. Draw a line halfway between each pair for the line to which each pleat will fold. Mark the hipline.

7. Fold and pin in the box pleats. Add seam and hem allowances before cutting waistline.

8. The fabric should be folded so that seams lie at the back edge of pleats. (It may be necessary to change the last seam you made.) Mark pleats on right side for basting, pinning, pressing. The pleats may be top stitched from waist to hip, or they may be marked on the wrong side and stitched as dart tucks.

After making several of these patterns you will be able to chalk the gore sections onto the cloth instead of making a pattern.

Pleats to Fit Shapes in Yoke

1. Make an elevation on a whole front of your block pattern. Relocate dart as needed—usually thrown into the seam. Too small or too intricate

shapes in a yoke are neither good design nor easy to tailor. The pleat lines should terminate at point or corners in the yoke design. If symmetrical in design, after approval, work with one half only. This problem is essentially the same as pleats to fit an inset (Fig. 163).

2. Notch for ease in reassembling. Cut apart on yoke line. Draw horizontal line across hipline of lower skirt to keep parts in balance.

3. Cut apart on each pleat line. Keep the horizontal grain of the original section on a horizontal line of a fresh piece of paper. Separate each pleat line twice the width of the planned pleat. Pin or tape into position.

4. Fold the pleat lines as planned for side or box pleats. Draw around the block pattern.

5. Add seam and hem allowances. Cut out.

SKIRTS WITHOUT PATTERNS

Skirts may often be designed and made without the use of a pattern, combining methods of simple draping with the free-hand methods of flat-pattern work. Such methods are used in making the gathered straight skirt, the straight pleated skirt, and the wrap-around skirt (Fig. 167).

The Straight Gathered Skirt

For everyday wear in spring and summer, girls like the dirndl or peasant type of skirt. Straight lengths of material can be sewed together in plain seams, gathered around the top and hemmed at the bottom. Soft fabrics are best—printed crêpes, solids, horizontal stripes, and bordered effects have been popular. For evening dresses more widths are needed in lace, net, organdy, and taffeta to create the distended silhouette.

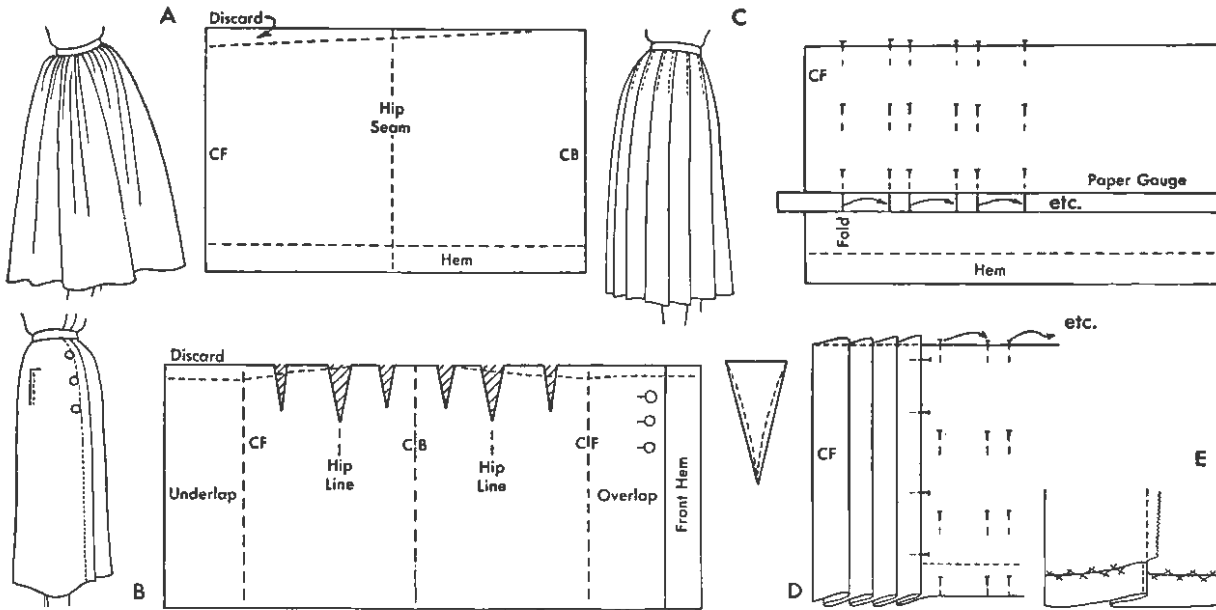


Fig. 167. Skirts without patterns. A, straight gathered skirt hollowed out at CF to make hem hang evenly. B, wrap-around. C, use of paper gauge to mark pleats on fabric. D, pleats pinned in for basting or pressing. E, edge stitching inside fold of pleat. Seam must be clipped where it enters hem.

1. Loosely gather one end of the cloth in your hands and hold it up to yourself before a mirror to decide whether you need two, three, four, or seven widths. Perhaps, two widths of soft rayon gabardine are too full and you will decide to cut 2" or 3" off the side (to be used later for a belt). On the other hand, you may decide that two widths of dotted Swiss are too skimpy and that two and a half or three widths are better.

2. Have a measure taken over the petticoats or hoops to be used, from your waistline to the floor at CF, CB, and over the side hip. Subtract from these three measures the distance from the floor you desire the skirt finished. Add to these the desired hem allowance and 1/2" for seam allowance at the waistline. For example, one girl measured 42" at CF, 43" at CB, and 42 1/2" over her hips. With her skirts worn 16" from the floor, the finished skirt should be 26", 27", and 26 1/2", respectively. Adding 3" for hem and seam allowance her skirt needs to be cut 29", 30", and 29 1/2"; therefore, she will begin by making her skirt lengths each 30" long.

3. Tear or cut the necessary lengths of the desired width. Sew them in seams, leaving one open for the placket. Press.

4. Pin up the lower hem as planned. It is on the grain and therefore easy to finish; perhaps, it is better to wait until it is attached to the band

to tack in the hem.

5. Fold the skirt flat on the table, with CF on one fold. CB will be on a fold if there are an even number of gores, or on a seam if an uneven number of gores, A (Fig. 167).

6. Note that the skirt for this girl should be 1" longer in the back than in the front and 1/2" longer over the hips than at center front. Measure down from the upper edge, and with chalk or pins mark a gradual curve which hollows out the front and side of the waistline. By this method the hem is on the grain and even, since the inequality is taken care of by the curve at the waistline.

7. Finish the placket, to leave a 1/2"-3/4" seam above the zipper.

8. Put in two rows of gathers 1/4" apart. If each width is gathered separately rather than stitching across the seams, the gathering threads will pull up smoothly without knotting. If you want to gather in one operation slash the seams at each line to be crossed by the machine stitch.

9. Pull up and adjust gathers to a previously fitted belt band. Some girls look better with more fullness over the hips, others with more in the back. Study style sheets but seldom is style obtained with equal fullness all around.

Try on to adjust gathers and approve hem. Check right and left halves to balance on belt band. Finish hem and belt.

The Broomstick Skirt

Broomstick skirts worn with squaw shirts in southwestern United States have been popular for square dancing and other casual affairs. They are made from a straight gathered skirt pattern or from a tiered skirt pattern of three to five gathered flounces well proportioned and joined to the one above. In the latter the lower flounces are torn in even widths, but the one at the top next to the belt should be hollowed out in front similarly to A, Figure 167. The lower width varies from 4 to 10 yards. After being hemmed, decorated, and attached to a belt the skirt is hand pleated in folds about $\frac{1}{2}$ " deep, wet and tied in twisted fashion around a broomstick or pulled into a nylon stocking to dry. The result is a crinkled, irregularly pleated effect. Almost perfect accordion pleats are obtained by using a stout gathering thread as long as the skirt circumference to make small stitches taken from the wrong side 1" apart. Make several rows of gathers about 6" apart. Then pull the gathering strings all at once as in old-fashioned gauging to form neat pleats, before wetting and blocking on the stick. (Gauging like this is also used to make pleats preparatory to smocking.) It might be commercially pleated.

Skirt from Tubular Jersey

Use the one-piece skirt pattern (Fig. 146) you developed from the two-piece foundation pattern. Have a length of 54" tubular jersey long enough for hem and seam plus your greatest skirt length, usually CB. Also, have a piece from which to make a belt.

About $1\frac{1}{2}$ " ease should be allowed above your hip measure. If you measure 35", then $36\frac{1}{2}$ " is used for the basic skirt, and $17\frac{1}{2}$ " left over for pleats on the hipline. These may consist of one inverted box pleat at CF using 8" and the remaining $9\frac{1}{2}$ " at CB; or there may be none at CB and two or three side pleats on each side of CF.

Since jersey falls better in unpressed pleats, you might make three pleats each $1\frac{1}{2}$ " wide on each side of CF or CB. Pin them in at first—later stay-stitch around the waistline for a fitting.

Place the pattern over the jersey with the pinned in pleats. Mark the six basic darts, baste-stitch or pin, and try on. Take up or let out darts or pleats to fit.

Wrap-Around Skirt—Without a Pattern

The wrap-around skirt is fitted closely at the hipline, keeping the border, selvage, or fringed edge for the lower hem or for the side hem, B (Fig. 167).

1. Cut the rectangle of the skirt in depth equal to the desired skirt length and with border along the lower edge equal to hip measure, plus 2" to 4" for ease (depending on build, texture of cloth, present style tendency), plus amount you wish for the lap (half or all the front width), plus any additional fullness desired, as for a few pleats.

2. Hem or finish lower edge as planned.

3. Baste, pin, or press in the vertical hem and pleats allowed on overlap.

4. Mark CF on overlap and underlap; then mark CB.

5. Try on to see that this allows proper ease around hips and make corrections for CF and CB.

6. On the belt mark with pins the location of the side seam, where it is to meet the underarm seam of blouse. Normally the front measures about 1" more than the back.

7. Estimate the difference between your hip measure and your waist measure. Divide this difference by the number of darts to be taken. This will give the width of each dart at the waistline.

Make a pattern of the dart by drawing a long triangle on stiff paper. The base of the triangle is the width you have just mathematically secured. In depth it should be the distance from your waistline to your upper hipline—about 5" or 6". Avoid making these darts too long. The front ones will need to be smaller and shorter than those in back.

Now draw slight curves inside the triangle to correspond to the natural hipline. A tailor's curve stick, or a good curve obtained from a commercial pattern, will help until your eye and drawing hand are better trained.

Place this pattern and draw around it at all points where darts are desired, as over the side hip and in the back, B (Fig. 167).

Several plans may be used:

1. two in back, one on hip, two in front.
2. six in back, two in front, none on hip.
3. three in back, two in front, none on hip.

In fact, these will correspond to gore lines. The

flatter the figure, the fewer darts are needed, and the narrower they are. The larger the figure and the more rounded it is, the greater the difference between the hip measure and the waist measure, the wider the darts must be, and the more there must be. In studying the figure you will note that fewer darts are needed in front. You may use the front and back basic skirt patterns arranged as in Figure 159, B, instead of having to do the arithmetic.

The preliminary marking may be done flat on the cloth or on a paper pattern. After all the darts are fitted accurately, hollow out the center front of the skirt as shown.

Full Pleated or Kilted Skirt— Without a Pattern

Well-pressed pleats provide straight lines that give neatness and animation, yet a slenderizing effect even to fairly large sizes. The pleats should be stitched flat above the hipline except on very slender figures. For the girl with hips large in proportion to the waist measure, the pleats would overlap too much at the waistline; for her it is better to have a yoke to which the pleats are attached.

The best fabrics for pleated skirts are firm, crisp, and not too thick with the heavier threads paralleling the pleated folds. Poplin and faille are two examples of fabrics with crosswise ribs which will make flatter pleats if pleated with the crosswise grain (the selvage along the hem). Acetate sharkskin, worsteds, and linens take pleats well and stay pressed if well steamed in. Bulky fabrics do not look good, taffeta is too flat, and satin requires unpressed pleats to play up its rounded softness. Plaids and stripes provide perfect grain lines to follow in folding but offer problems in planning spaces.

1. Take an accurate but easy measure over the fullest part of the hips. If too tight, the pleats will not hang straight but tend to flare apart.

2. The skirt after seaming should be three times as wide as this measurement, plus 1" or 2" since the material takes up some in the folding.

If small pleats ($\frac{1}{4}$ " to 1") are being made by a commercial pleating company, several inches over this amount must be allowed for shrinkage, for slippage of pleats over one another, and for matching seams under the pleat. It is wise to consult the shop having such a service.

3. Before pleating, all lengthwise seams except the last one left open for ease in handling are finished and pressed. Then the hem is finished as flat as possible and pressed. After pleating, the last lengthwise seam is finished under a pleat so that it cannot be detected and so that the hem finish is invisible. Rip the hem a few inches to stitch the seam.

4. If wider pleats (1" to 3" wide, either side or box pleats) are used, divide the hip measure by the size of pleat to find out whether this will give an exact number of pleats or a number and a fraction over. It is better to change the size of the pleat rather than the number of pleats, unless the size is small where an extra pleat would not materially affect the fit over the hips. If a box pleat is made at CF, it can absorb the extra amount.

Since each seam is to be concealed and lie flat in the back edge of an underpleat, begin to pin the first pleat over the first lengthwise seam and pin along the top edge of skirt before putting in the hem. Continue pinning these trial pleats until you have reached the place for another lengthwise seam. Generally, it is necessary to waste a little of the material at this point to make the second lengthwise seam fall in proper position under a pleat. Continue in this manner until all pleats and all lengthwise seams are planned and pinned. Then finish lengthwise seams and the lower hemline and press, before marking entire length of pleats and basting them preparatory to pressing.

To mark pleats easily and accurately, prepare a paper or cardboard pattern or gauge. Slip this gauge down the length of the skirt at intervals and mark with pins keeping on the grain, C (Fig. 167).

Baste in the pleats and press, D. See directions for pressing (p. 148) to insure success. Baste stitch along seam edge at the top of pleated sections to prevent the pleats from spreading.

5. This pleated straight skirt is now ready to attach to a belt, yoke, or underbody. If attached at or below the hipline, no alteration is needed in the top of skirt. If slightly above the hipline, the top of the skirt will then need to be held in slightly full to fit the smaller size of the underbody, lining, or yoke.

If the top of the skirt is at the normal waistline, tack a thin tape to the wrong side of the pleats around the hipline. Place the skirt on the figure

and anchor with pins to the beltline CF, CB, and at side seams. Then from hipline up to waistline lap each pleat over slightly to fit the hips and waist (yoke line or belt). This is a very particular piece of work, because it cannot be very easily done mathematically, but we know that the equivalent of the basic darts must be removed at the waistline near the normal location of these darts. To be exact, the difference between hip and waist measure must be removed. For example, if your hip measurement is 35", and the waist is 27", then 8" must be removed. If 2" pleats were planned eight on each side with a 3" box pleat at CF, one might take $\frac{1}{4}$ " out of each CF and CB pleat totaling 1"; and $\frac{1}{2}$ " out of each of the others.

It is better to have the pleats seem at right angles to the waistline, even though the spacing is not the same at all places. This method does very well, naturally, on the slender figures. The more curved or pronounced one's hips are, the more difficult it is to achieve the correct effect in pleating. It may be necessary to change the top fold of the pleat, also. The result is too much overlapping, which is obviously too bulky on the heavier figure. This figure should have a shaped yoke to support the pleats and flatten the waist-hip area.

6. As in the straight full skirt, A (Fig. 167), it is necessary to hollow out the center front. Great care is required in fitting on the figure. Note that when this skirt sticks out at the lower front and cups in at the back at the lower edge, the center front was hollowed out or pinned up too far; therefore the whole skirt needs lifting in the back and sides. This fitting may be done in one of several ways: by taking a tuck across the yoke or lining back; by cutting off lower yoke edge at the back; by taking a deeper seam at the top of the skirt in the back, cutting off the top of the skirt at the back; or letting out the seam in the front of the skirt. This fitting problem arises when the person being fitted has a poor posture or a large abdomen. The opposite procedure would be required for a prominent *derrière*.

Marking Pleats on the Fabric

Use paper to plan pleats and to form a gauge in marking.

1. Having decided on the size and number of pleats, use a strip of paper 2" or 3" wide on which

the pattern is to be made. Be sure that edges are at right angles. Mark off several pleats with a ruler, and fold. Label line on which fold is made, and the line it is to meet, C (Fig. 167).

2. Place this pattern on the right side of the cloth and mark with pins parallel with the pleats. Slip the pattern down at intervals and insert more pins, until the hem line of the skirt is reached, D.

3. In firm cottons and linens, pin in pleats, then pin to the ironing board and press without basting. In loosely woven materials baste and then press. In wools and silks it is better to mark, baste, and press one pleat at a time, before going to the next. One cannot mark accurately the second pleat when measuring from a basted and rounded fold of a pleat. Either measure from a pin or from a pressed flat edge of the previous pleat, or pin mark all pleats before creasing any. Plaids and stripes make pleating easier. In using pins to mark, always insert them lengthwise, exactly parallel on the pleat line. But when folding a pleat over to a line to hold in position for pressing or basting, place the pin crosswise to the pleat. It does not slip and keeps the pleat from puckering up and down.

4. Basting may be done first along the top folds only. Pressing these folds first until perfectly flat and straight before basting down into position makes them flatter and prevents a mark, but there is danger of stretching the edge of the pleat or of shrinking unevenly.

Another method is to baste all the pleats flat first, partially press, remove bastings, slip paper under each pleat, and complete pressing.

Turn to the wrong side to press the underfolds thoroughly. If the hem has not been taken previously, learn not to press too thoroughly on this line. When the hem has been finished, give the hem an extra hard pressing, especially on the wrong side. Be sure to clip lengthwise seams at the back edge of a pleat where they escape from the hem, to allow them to lie flat in the proper direction, E (Fig. 167).

5. Pressing pleats is a most exacting process but easier with a steam iron working on the wrong side. Without a steam iron place a dry pressing cloth on the right side of pleats, dampen evenly with a moist sponge, and press until almost dry, lifting the iron often, pressing down on the iron with a slight rotary movement, and pushing the iron with the pointed end of the iron lightly in the lengthwise direction of the pleats (or with the

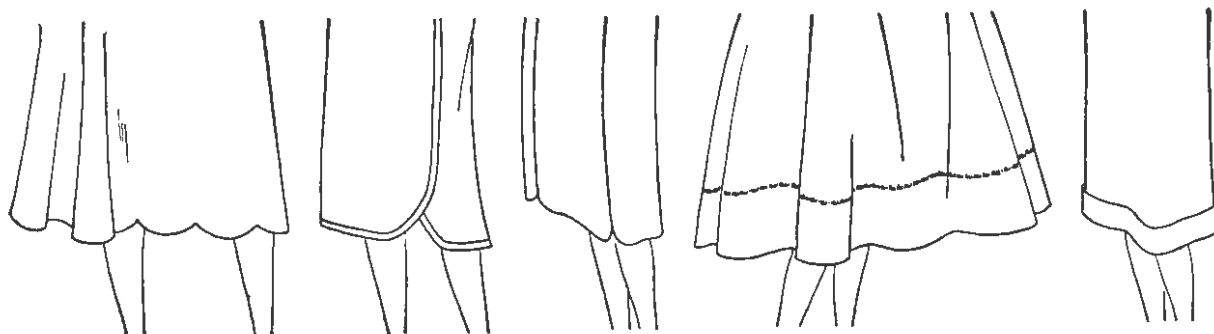


Fig. 168. Skirt hems and facings.

grain if slightly bias) slightly up, never digging down into the cloth. Always remove bastings before dry, and complete the pressing with heavy paper or cloth between the pleats. Lift up the edges of the pleats, insert a dry cloth or paper and press to remove any marks. Beat with a tailor's clapper just after removing the iron to hold the steam and insure a flatter seam or pleat. Place the pleated material on a table to dry.

Making Unpressed Pleats Fit a Belt

One may contrive a pleated skirt from two full widths of material, or any given amount one has on hand, provided of course that it is wider than the hip measure. Casual unpressed pleats have been popular for heavy weight cottons of two or two and a half widths to fit the belt instead of the hips. A box pleat in center front with inverted box pleat at center back and side pleats 1" to 1½" wide gives a less bulky effect than do gathers. Guatemalan and hand woven fabrics lend themselves to this simple designing. The placket should be made to come at the underfold of a pleat near the underarm seam, just a seam left open with two snaps for closing.

1. Cut a piece of paper 2" or 3" wide and equal in length to half the width of the seamed material minus two seam allowances. Use this for practicing different pleat combinations, as in C, Figure 167.

2. The difference between this length and half of the "easy" belt measure, gives the allowance for underpleats. If this difference, for example, is 24", a space of 12" may be designed in pleats. This may consist of six 2" pleats, twelve 1" pleats, four 3" pleats, eight 1½" pleats, and so forth.

When these have been made satisfactorily in paper, they may be marked by pins on the cloth. Use this pattern to insert pins at the waistline,

hipline, hem line, and any number of places between that seem practical, as in C, Figure 167.

3. It may look better to save 2" or 3" for a dart over each side hip, perhaps concealed under a side pleat.

4. Contrasting material may be used for under-sections of pleats, if they enhance the design. This is especially valuable for the lower section of inverted box pleats, and in remodeling problems.

SKIRT FINISHES

Hems and Facings

Average skirt hems require two to three inches for finishing. Decorative finishes may be applied after careful pressing and hanging of a skirt. They usually make alteration impractical or impossible. Facings are often required and if so should be true bias or shaped exactly to fit the grain of the skirt. They are needed for scalloped and zigzag edges, slits, the peg-top skirt, and petal pleats.

Facings to finish hems, the skirt opening, overlapping yoke line, or shaped darts are cut and finished as facings (Fig. 79) on blouses. A facing must be an exact copy of the pattern part to be faced not only as to shape but also as to grain.

Other suggested finishes include bias and straight bands or cuffs, pleated ruffles, dust ruffles, piping, shell edge, lace edge, rolled hem, ric rac, braid, and hemstitching (Fig. 168). Because many of these finishes are narrow, they solve some of the problems of finishing the very circular skirt. In woolens, seam tape applied as a facing is helpful, for then only one seam of the skirt needs to be turned back, which will shrink out nicely. Several rows of machine stitching give firmness and a tailored appearance.

A complete knowledge of the possibility of these finishes enables the designer to make better patterns.

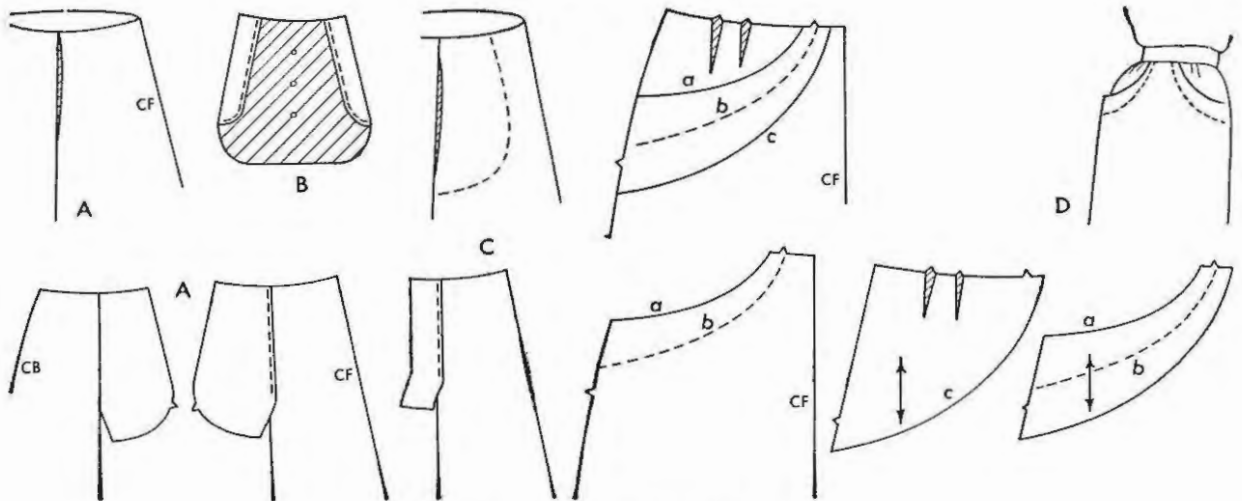


Fig. 169. Side pockets in skirt.

Pockets

Patch pockets are quite effective on skirts—they are cut free-hand. Currently there are many of the kind set into the hip seam or developed from an underlap on the yoke with a faced overlap on the body section, as in Figure 80. A pocket on the right hip seam only leaves the left side seam free for easier application of a slide fastener placket.

A simple pocket to cut and make consists of two identical pieces shaped as in A (Fig. 169), 2" or 3" longer than the opening. One is sewed on the right front of the skirt above the placket opening as a facing (seam stitched, then pressed, trimmed to $\frac{1}{8}$ "– $\frac{1}{4}$ " or graded and under-stitched close to the edge, i.e., through the facing and two seams but not the skirt proper—to make the facing always stay inside out of view). The other is sewed to the right back of the skirt in a plain seam and pressed forward as the underlap. Then the two pocket edges (notched) are sewed together. The top of the pocket is stay-stitched to the top of the skirt before applying the belt. The maker should be warned to have the skirt properly fitted over the hips before applying this pocket. A faced side pocket* inserted in a seam may be cut in one piece, then faced before inserting in the opening, B.

Another simple set-in pocket consists of a facing 2" wide, to be tacked invisibly, down the opening left on the right front hip, C. Only one

shaped pocket piece is needed—to be sewed as an extension on the right back hip. The faced front gore is lapped over the pocket section so that hip seams match. Baste and stitch the pocket section following the $\frac{1}{2}$ " seam allowed on the edge of the pocket; keep the vertical seam from pocket opening to bottom of pocket free from the skirt seam.

The skirt pocket, C, is made in the same manner as blouse pockets (Fig. 80). The shape, a, is sketched on the skirt front with the one or two basic darts in the pocket section. The dotted line, b, represents a decorative stitching on the faced skirt section. The lower pocket line, c, is three or more inches below the visible stitching.

With a tracing wheel make the underlap or pocket inset from waistline to the depth of pocket, c, including the darts or dart tucks to give a casual softness. Cut the skirt proper on the opening, a. Cut a facing for a, down to match c. Add the same size seams and notches on all three pieces.

In dressmaking, pin fit skirt first to be certain of darts and hip seams. Face skirt with the piece ac, clipping curves. Top stitch on line b or closer to a. Pin or baste the faced skirt section on top of the darted pocket section. On the wrong side sew the seam c, free from skirt. This pocket creates some bulk over the hip so should be avoided in heavy fabrics or in a left hip with zipper placket; try a CF or CB opening, or use the pocket on the right hip only. The pocket itself may be clipped at the hipline on a, so that the vertical edge of the pocket can hang free of the skirt seam.

* Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949).

Placket

The standard placket opening today is finished with a slide fastener. Good directions for inserting one are found in the package. It is better to cut the skirt with hip seams somewhat wider than $\frac{1}{2}$ " or the front edge of the placket will need a tape or bias strip applied for facing extension. The placket, of course, is not made until the hip and waistline both have been approved in fitting and stay-stitched. The standard skirt slide fastener is 7" long; it is easier to dress with a slightly longer one. With short jackets a shorter placket in the skirt is necessary—perhaps two short ones in place of a longer one. Long ones are better at CF or CB than on the hip. The opening should be long enough to leave $\frac{1}{4}$ " free space above and below the metal fastener plus the seam allowance— $\frac{1}{2}$ "—at the waist, thus one inch longer than the fastener metal measures. Some of the expensive high-style dresses have the placket finished by hand; unless fine evenly spread stitches are used it may look homemade.

One of the best modern methods* is to close the hip seam with basting and work entirely from the wrong side.

1. Open and press basted seam line.

2. Work on wrong side with right side of fastener next to the seam, and left side of fastener metal against the seam line. Stitch (from bottom to top $\frac{1}{4}$ " from right edge of metal) the fastener tape to the back seam allowance, using the regular presser foot (left edge) and regular stitch.

3. Change to cording foot with left toe. Turn the fastener face up; fold a $\frac{1}{8}$ " pleat from the back seam allowance over to the edge of the fastener metal. Stitch from bottom to top—this completes the underlap.

4. To make the overlap, continue to work on wrong side. With fastener face down on the opened seam, spread skirt smoothly and stitch from bottom up—first across the tape close to the metal at bottom of fastener, up $\frac{1}{16}$ " away from metal, $\frac{1}{4}$ " wider at top for the pull.

5. Be sure to press on wrong side before removing bastings.

Other closings are made as in blouses: the hem on a shirtwaist dress and the fly closing. See Figures 72, 73, 75, 76, 77.

* Bishop, Mrs. Edna Bryte, *Clothing Construction Methods* (New York: J. C. Penney Company, 1953).

BELTS

Straight Belt or Band for Separate Skirt

Cut the belt longer than the measured length of your waist to allow for the flare of the hips or torso. Wide belts need to be longer. Add 2" for the underlap extension of the back—the front end of the belt should finish flush with the left underarm seam or placket edge. If the placket opens at CF or CB, it should lap right over left. Fit to body or model.

Tear cloth strip (cut paper if a pattern) twice as wide as the finished belt plus seams on two sides and ends.

The belt needs an interfacing half the width of the finished belt plus $\frac{1}{4}$ ". It is placed next to the wrong side of the outer half of the belt so that the stay-stitch will then be near the top of the inside belt after folding. Matching thread must be used as this stitch is permanent. Stay-stitch $\frac{1}{16}$ " from edge of interfacing.

Press the top fold of the belt in a semicircular concave shape before basting to skirt. Right side of skirt is placed to right side of belt for basting in a plain seam. (Then fit, rip ends, make placket.) Complete belt by closing ends of belt with right sides together, stitched to form exact right angles, trimmed and turned; by top stitching preferably, from right side all around.

Separate Belt

A straight strip of paper (or cloth) is folded in two lengthwise so that the pointed or curved

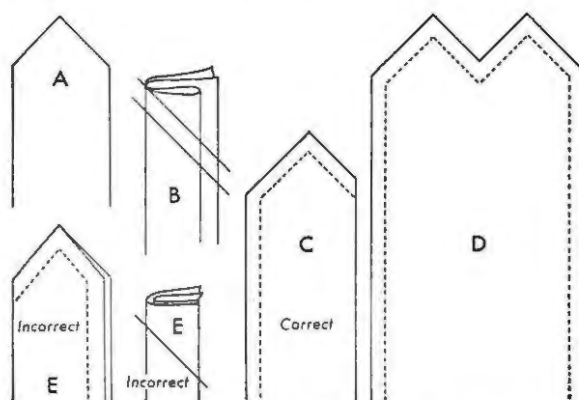


Fig. 170. Separate belt. A, finished shape of standard style. B, correctly stitched. C, finished pattern. D, incorrectly folded to cut edges (instead of to the seam line) resulting in shape not symmetrical.

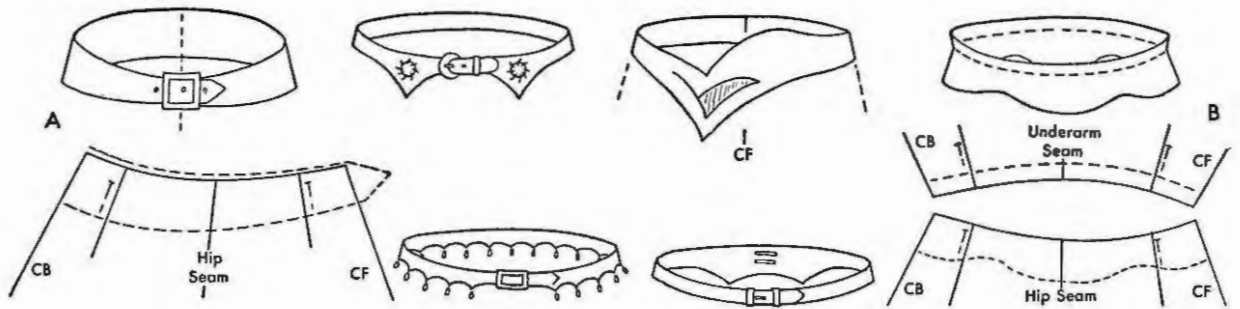


Fig. 171. Contour belts designed from top of skirt pattern.

end can be cut perfectly symmetrical, A (Fig. 170)—then seams are added all around. The length should provide for attaching to the buckle plus overlap for eyelets.

If one does not want a seam on both sides, cut the strip twice as wide as the finished belt plus two seams, B. Fold first lengthwise through the middle, then bring fold to the seam line, before cutting the pointed end.

Shaped belts without the commercial buckle can be made more distinctive by ingenious but simple designing and by finishing in a well-tailored manner. Such belts need an interfacing, and a lining cut smaller than the outside belt.

Shaped Belts

A contour belt that fits cannot always be found ready-made. A pattern is easy to develop. Trace the waistline and 3" below on front and back skirt patterns with basic darts pinued in (Fig. 171).

Join these at the side seams and open at CF, A. Add enough for overlap. Then shape to any style you wish, usually narrow in front and dipping in the back. The belt made for one type of figure thus may not fit some other person or garment.

Shaped girdles and cummerbunds may be made in two pieces with normal waistline seam, using 1" off the bottom of the blouse pattern and 2" or 3" off the top of the skirt, B.

Free-form, asymmetric designs, decorative quilting, ball fringe, dangles—handmade (not home-made or amateurish!) buckles, ties instead of buckles, piped buttonholes, ornamental beads, and buttons may suggest unusual features to use with simple cut or basic style dresses. Needless to say, the shape of the belt should harmonize with some other feature of the dress, but should not be too obvious a repetition. In fact contrasting textures and colors frequently are smarter than the belt of self-material.

Chapter 14

DRESSES

Earlier civilizations, some more civilized and others more primitive than our present industrial era, developed beautiful garments chiefly by draping or folding rectangles and triangles of cloth about the body. They were secured by ties, girdles, pins, and other ornaments. The clothing industry was focused on harvesting the fiber and constructing the cloth. For complete functionalism and pure beauty they are well illustrated in the classical Greek chiton and today by Oriental, South American, South Pacific, and African robes like the sarong, kimono, sari, serapi, and huipil (Fig. 172), the peasant blouse, and the kilt.

This primitive rectangle method of designing clothes intrigues us when we consider the ease of constructing, cleaning, and storing with the accent on the inherent beauty of the textile itself and the accessories. It is amazing that this generation of modern young people who demand contemporary housing and casual living have not adopted and adapted this type of dress more fully. It is both natural and graceful but it may not be so comfortable as semifitted clothes; however, stores would be relieved of fitting departments. The emphasis for good dressing would be on skill in draping, on posture and, perhaps, charm of mind and wit. The recent success of the dirndl skirt, the stole, and the peasant kerchief indicates a desire for the simple, but how often did it deteriorate to sloppy ways? Not every girl can arrange a stole artistically. If we all lived on beaches or did not use a subway every day, rectangles might serve. However, we do see evidences of a return to simpler forms, notably because of the high cost of labor and shortage of skilled artisans in the needle trades. Many designers are empha-

sizing the sleeveless or dolman sleeved dress and suit rather than the time honored set-in normal sleeves. The wrap-around house dress and the tubular jersey worn with an elasticized "cinch" belt are further examples.

Modern clothes are made under three systems:

1. By high-style dressmakers for individual customers, designated as custom-dressmaking in America, and as the haute-couture in France.

2. By the factory system, chiefly in United States, turning out ready-to-wear for the millions. The garments range from crudest, ill-cut cheap clothing to beautifully styled and tailored well-fitting clothing. They are fairly well standardized as to size when compared with the output of other countries. The styles are becoming more standardized as labor costs go up. The average or above average lines are better made than most women are able to duplicate at home.

3. By the home sewer, mother, or career girl who has higher standards or tastes than the budget will buy in ready-mades, or who has a creative or designing urge or love of pretty clothes.

In each group there is a necessity for simplification of production and this can be brought about, perhaps by changing our emphasis from cutting and rejoining many pieces over to making better choices in texture, color, and line (cut of pattern). Improved methods of sewing are being developed and taught. Sewing machines are being made with improved attachments or adjustments. Modern methods should free one's time without sacrifice of professional finish. Who wants to spend two hundred laboratory hours making a padded, taped, interfaced tailored suit that looks like

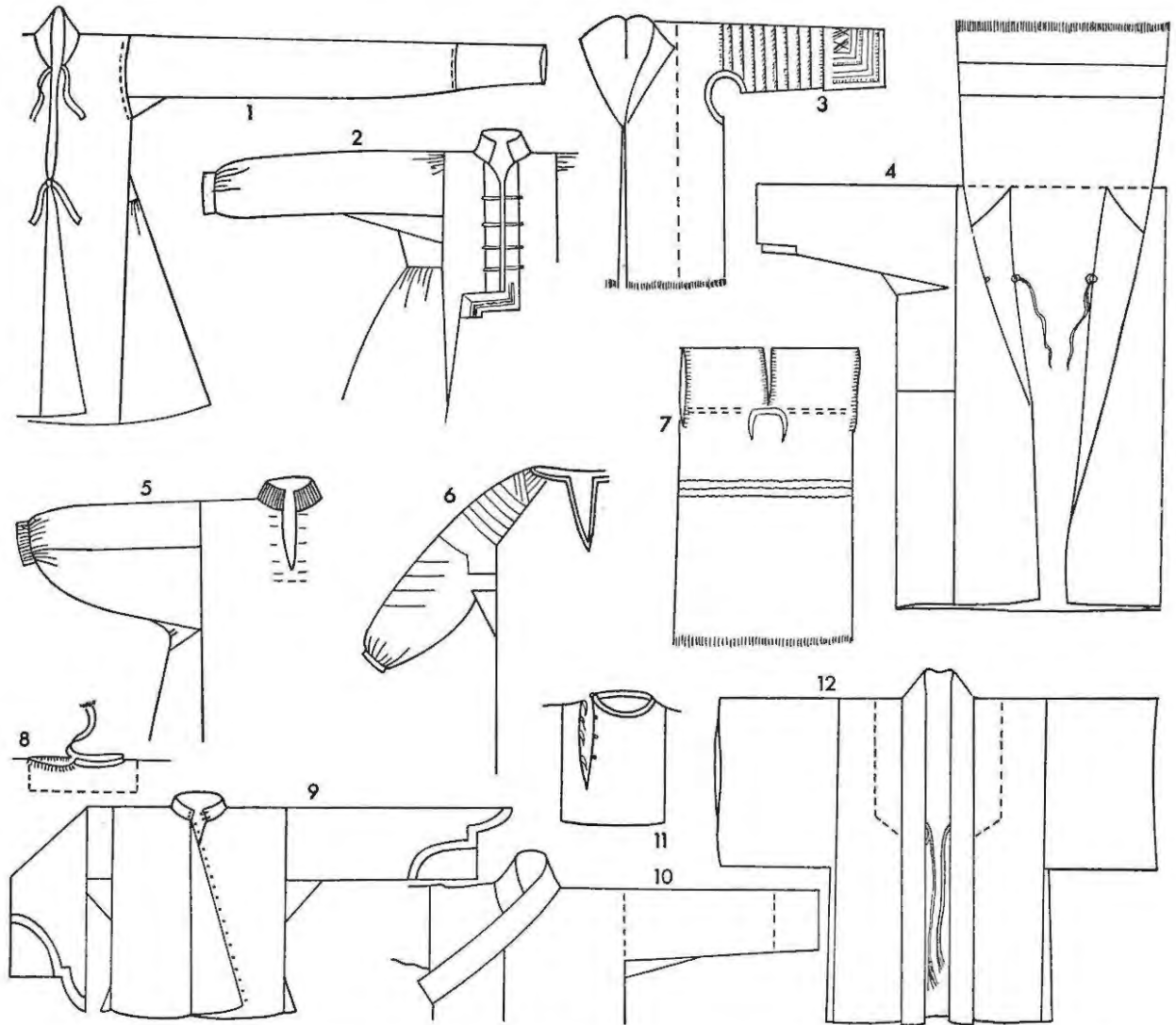


Fig. 172. Garments without patterns. Rectangles and triangles ingeniously used in different times and parts of the world.

\$29.50? There are too many attractions and benefits to be derived from the release of time and energy.

A happy medium between the draped rectangles, the French hand-cut dress and the American ready-made seems to be the modern trend. One needs to face economic facts and re-evaluate one's philosophy of living to design fashion-right clothes.

PLANNING THE DRESSES

In designing a dress as a personal problem one should have either a specific use or a particular type of occasion in mind. For the greatest satisfaction the colors and textures chosen should fit into a coordinated wardrobe plan. For college

girls, career girls, and many other young women the basic seven* forms the core or backbone of a well-planned wardrobe. These seven are a year-round topcoat; a soft suit; skirt, sweater and separate jacket unit; a shirtwaist type of dress; casual sport or general wear dress; an afternoon, date, or "Sunday" dress; a party dress—formal, dinner, "after-five," or dance dress. Each of these types must be chosen to suit one's needs as to cost, climate, business, or social participation and so that some of them may be worn together. Accessories and variations of any or all of the basic seven are the constant concern of most women

* Erwin, Mabel D., *Clothing for Moderns* (New York: The Macmillan Company, 1949), p. 60.

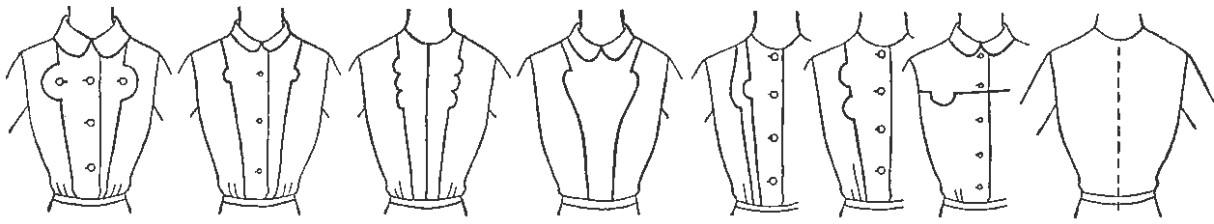


Fig. 173. Trial sketches based on one idea.

and the basis of the huge clothing industry in this country. For a particular dress you certainly should have a general idea of the occasion, color, and texture as a basis for making your first plan. In addition, there must be recognition of the limitations of, as well as the best lines for, the wearer's build and personality.

A designer for a manufacturer usually begins with a specific fabric and an assignment from the manager or department supervisor as to the type of garment for which the cloth was first purchased, such as slacks, girl's school dresses, wedding gowns, suits, or party frocks.

Designing either for yourself with your personal foundation pattern or for the general public with the manufacturer's sloper, you need design ideas. You already know where to get them—from first-hand or second-hand observation of current styles by attendance at fashion showings, study of fashion magazines, newspaper reportings; a fundamental knowledge of how to apply art principles to costume and a basic understanding of how garments are put together and finished; a flair or enthusiasm for good-looking clothes and acquaintance with the better types through store selling or buying, window shopping, and attending affairs where well-dressed people are to be seen—just to mention the more obvious sources.

DESIGNING BASED ON SILHOUETTE

An important consideration is the *silhouette*—a problem in the successful end product, and an economic problem, too. Silhouette is determined by the length and width of the garment both of which affect the yardage as well as the fashion quality. The fashion world revolves around such questions as:

How long are skirts this year? Are they straight and narrow or distended? If distended, are they full all around, or is the fullness concentrated at the back or at the hips to create an arched hipline with flatness at both front and back (Elizabethan)? Is gathered, pleated, or circular fullness preferred?

Where is the waistline? What effect will this have on space divisions? How is balance for a full skirt or slim skirt achieved?

Where does the shoulder seam end? Is it padded—why?

What types of sleeves and necklines seem dominant? Why?

What accessories are fashion-right this year—that will complement this dress?

What decorative items (trimmings) are available that would fit the total cost of the final garment? What are the limitations of the operator or dressmaker and her tools?

After a survey of these two general problems: (1) the type of garment to design; (2) the general fashion trends—one must get something more specific on paper. Assemble all the clippings, sketches, and mental notes you can locate. You may use a sketch provided by someone else, your boss or your customer. Such a sketch need not be a true-to-life drawing, or one in perfect scale, but it helps to have a working drawing that shows location of seams, darts, and other lines. Details of decoration or dressmaking finish may be extra. If you are not so "good" at making these working sketches, use transparent tracing paper as an overlay on an outline of the silhouette you propose to use. Make a dozen or so copies and develop your various ideas on these tracings. Copy each outline and modify the silhouette based on this season's fashion news. Block in general space divisions before details. See how much better you can do. When you have a better idea, consider the time and cost of making. Will you or the operator have the technical skill for executing the details? Even so, do you wish to spend your time that way?

If you have a brief idea of some kind see what you can do to make it different, more interesting, and more distinctive. For example, begin with an ordinary blouse design (Fig. 173). Make a dozen tracings of the silhouette. Make the following changes:

move lengthwise lines to change spaces,

raise the motif,
 lower the motif,
 change its size,
 change its shape or contour,
 reduce or change the collar,
 reduce, add, or omit trim,
 change the number, kind, and size of buttons,
 reduce size of motif and increase collar,
 increase size of motif and reduce collar,
 use two or more motifs,
 use asymmetric design,
 change spaces from vertical to horizontal,
 change from vertical to oblique,
 change motif to asymmetrical shape,
 change the closing.

As you proceed other variations will come to mind. Select several of the best, criticize and refine the shapes and proportions. Select the best one.

Or begin with a blouse, skirt, or sleeve silhouette in vogue and becoming to you. Break the large area into two or three well-proportioned spaces: (1) with horizontal lines in the upper area; (2) in the lower area; (3) with vertical space divisions; (4) with diagonal lines; (5) with combinations of vertical, horizontal, and oblique; (6) convert some to curves in harmony with body or silhouette curves; (7) repeat some; (8) accent some by parallel lines. Make mental or pencil ideas of decorative accents on lines such as pleats, tucks, stitching, scallops, hemstitching, braid, fagoting, tabs, flanges, loops.

Transfer the final idea to the foundation pattern. Make first division lines in chalk or soft pencil with bold smooth strokes. Avoid fine sketchy lines with hard pencil. Try on model or self for proportions. Refine lines and fill in details last.

Some excellent designers begin with a good accessory like a leopard skin belt, a topaz ring, a contemporary handmade silver neck band, or a pair of red shoes. More specifically you need not begin with a small sketch, but work directly on a copy of the block pattern. If you have an idea for a skirt go ahead and develop it then design the blouse to suit it.

DETAILS AS SPECIFICATIONS

Every designer is confronted with a problem in designing to specifications—certain requirements of a customer, the public, or one's self. For example a sheer cotton for half sizes—for Southern

climate, to travel, or for work, easily gotten in and out of, full enough, yet not obviously the prim shirtwaist dress. Such an assignment requires many trials to get a style that is neither kiddish nor matronly. There are countless restrictions set up by the clothes-minded public—perhaps, based on prejudices, sheer notions, but often for such reasons as hiding a scar and other personal defects; avoiding hard-to-reach openings, covering the elbows, securing the sheath effect yet having freedom, securing a fashionable short length yet long enough in parts to partially conceal thick legs; a short skirted wedding dress, elegant yet useful for occasions afterwards; a battle jacket for a short plump woman to pull on during television in a drafty recreation room, perhaps of velvet, and so forth.

Setting up some limitations of your own offers possibilities for a design that may be different enough to be hailed as new or a successful seller because it fills a need. The following suggest ways of coming to a conclusion.

Bolero—shall it be collarless, double breasted, flared in the back, sleeveless? Or shall it have a Peter Pan, shawl, or Chinese mandarin collar; kimono, raglan, or dolman sleeves; have collar and lapel cut in one, wide cuffs, three-quarter or short sleeves?

Child's dress—shall it have short yoke-like bodice, or be long waisted; have long or short sleeves, be sleeveless, or ruffle or band only on armhole or have puffed sleeves, lantern sleeves; a Peter Pan collar or a binding at neck; three widths or two in the gathered skirt; a circular skirt; belt, sash, or ties?

Ballerina skating skirt—shall it have for a top a waistcoat, jumper, peasant sleeves, Mexican blouse, squaw shirt, halter neck, bolero, strapless bodice, bat sleeves, mannish shirt, lantern sleeves, fichu, leg-o'-mutton sleeves, princess cut, Puritan collar, fur collar, large cape with sleeveless blouse?

Jumper style dress—shall it be open down the front or zippered at CB; sheath skirt, gored, or circular; have a peg-top skirt; princess or Empire cut, longer torso; be wrap-around, have pleats?

Shirtwaist dress or coatdress—must it open down the front, or can it be off center, or have a fly front, a shirt front or be a step-in style; flared by circularity or godets rather than standard six gores? Changed from notch collar to basic necklines for necklaces or to a sailor collar? Where can the pockets be? Can sleeves be genuine shirt, coat, or raglan sleeves? How change the buttons?

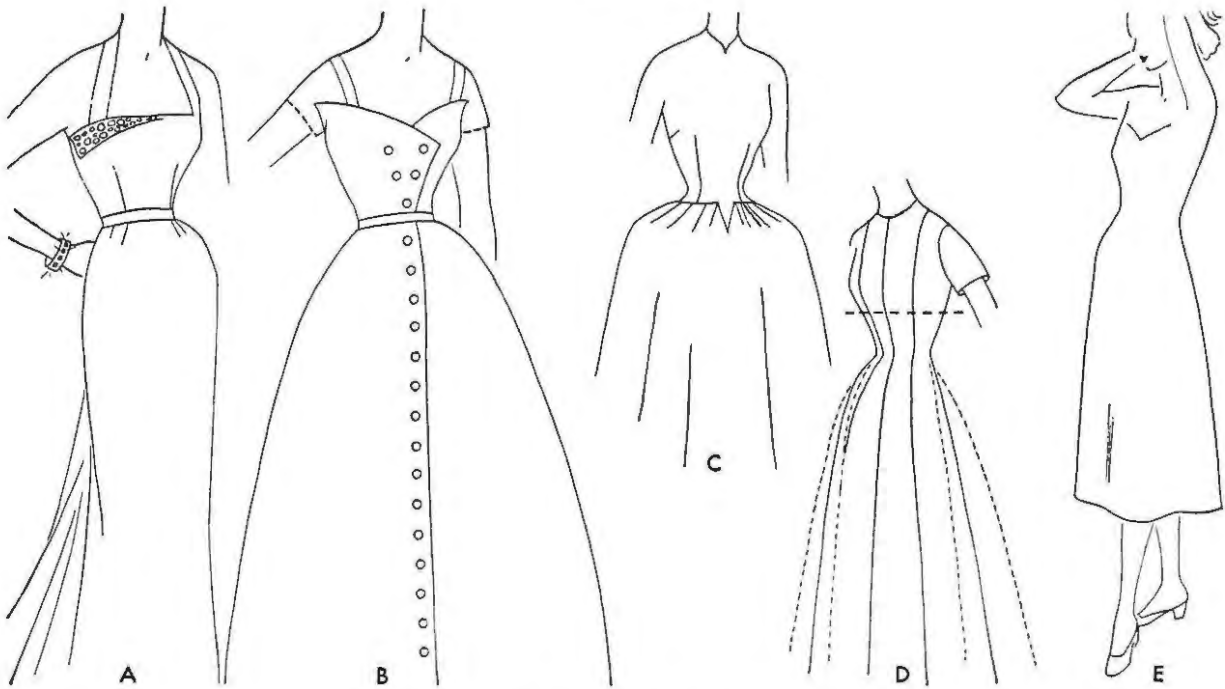


Fig. 174. What silhouette as basis for your dress design?

How could it be developed in brocade for evening?

Battle jacket—shall it be drop shouldered or be cut with raglan or kimono sleeves; have a turtle neck, cardigan, deep V pullover like a sweater; must it be wool or how about lace or velvet?

A simple formula which helps many designers get started after selecting the fabric based more or less on the purpose of the dress, is to decide on the basic shape. Make a copy of one you have in mind, as A, B, C, D, or E (Fig. 174). Suppose it is B—fitted bodice, round neck, short sleeves, full gathered skirt—you convert the basic shape

into four different types of sleeves (long, three-quarter, sleeveless, puffed) and four types of neck finishes (halter, Peter Pan, shawl, asymmetric), making sixteen suggested choices. This may be like paper-doll play but practical.

Table IV provides further suggestions. Add to the list in each group. Looking through fashion material for current popular ideas you should check those that seem suitable or practical or new. Combining the details with the basic cut in fresh ways is not original designing, perhaps, but provides less ordinary results. Pirating designs is certainly unethical. After all, there seems to be

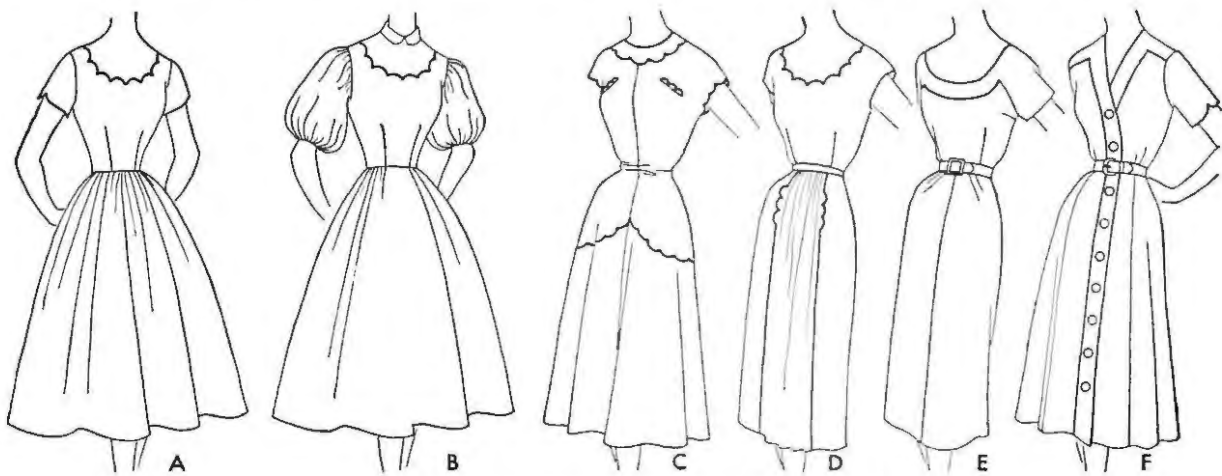


Fig. 175. Modifying a design idea.

nothing new under the sun, but perhaps there are new combinations of old ideas.

Such mechanical devices are only helpful in getting started. To the basic concept you have developed, you must add the lines and shapes that are becoming, suited to the fabric, suited to the skill of the operator and above all consistent with the basic principles of good design. For example, in Figure 175, the sleeves in A are in harmony with the neck but not an obvious repetition. The puffed sleeves in B balance the full skirt but the bodice and collar are kept trim and petite to avoid bulk. In C, there is too much repetition of the scallop idea; the pockets are too small. In

D, the silhouette has been changed by narrowing the skirt but looseing the bodice to avoid a skimpy look; the front fullness offers softness, the scalloped pockets are not too obvious a repeat and accent a structural line. In fact, an inside skirt yoke or lining is needed to hold the front fullness in place and the pockets will thus have a two-fold function, accented by the scalloped edge. In E, the designer forgot about scallops to secure a more sophisticated styling, while in F, the classic cardigan cut was combined with a shoulder yoke. What improvements can you suggest for E and F without overdoing a design idea, yet developing a slightly refreshing innovation?

Table IV

FABRIC	SILHOUETTE	CUT	WAISTLINE	OPENINGS	ARMHOLES
crêpe chiffon denim piqué faïlle Swiss flannel chambray shantung jersey cotton tweed velvet tulle	sheath bell Empire hour-glass tulip long short back fullness front fullness flat front hooped pyramid arched hip bloused top	chemise princess one-piece two-piece asymmetric gored circular gathered pleated darted middy coat wrap-around French dart	standard high low belted draped wide narrow cummerbund drawstring elastic cinch belt contour belt	CF CB underarm shoulder double breasted surplice wrap-around slide fastener ties	set-in kimono raglan dolman square sleeveless
NECKLINE	NECK FINISH	SLEEVES	SKIRT	DETAILS	DECORATION
high low V bateau round square asymmetric portrait	collarless standing convertible flat rolled mandarin turtle neck fichu tie cape cowl halter	long short sleeveless three-quarter wide leg-o'-mutton puffed cuffed push-up bishop peasant lantern shirt	apron peg-top trouser top wrap-around harem drape swag drape flamenco ballerina waltz length broomstick train flounced step-in	pockets buttonholes tabs flaps yokes panels apron flounces ruffles vestee lapels peplum removable surplice	tucks pleats shirring smocking quilting embroidery scallops loops Angora beading fagoting top stitching pick stitching lace edging knitted ribbing fringe scarf buttons cording intarsia braid ric rac bias insets bows fur leather

BASIC CUTS IN DRESSES

Cuts in dresses may be grouped into five basic types:

1. Chemise.
2. Princess.
3. Long torso or middy.
4. One-piece dress with waistline seam.
5. Two-piece dress.

1. The *chemise* type, 1-6 (Fig. 176) and 1-6 (Fig. 177), has blouse and skirt cut in one piece without a waistline seam. It is designated as the *sacque*, *shift*, *nightshirt dress*, or the *sheath*. Without waistline darts and hanging free from the shoulder it becomes a *duster*, *brunch coat*, *negligee*, *smock*, *raincoat*, *shirt*, *wrap*, or *coat*. By dart manipulation more fullness may be swung into both waistline and skirt area. Belted it resembles a one-piece dress, but with a casual effect due to the necessity of arranging the fullness under the belt each time worn.

2. The *princess* type, 7, 8, 9, and 11 (Fig. 176), also has no waistline seam but fits better than the chemise because it has the vertical French-dart seams both back and front over the prominent bulges. It is the basis of the Empire high-waisted dress.

3. The *long torso*, *middy* type, 10 (Fig. 176), is a long-waisted type made by cutting a horizontal seam between the waistline and hipline—developed from either the chemise or princess cuts. The skirt may then be straight gathered or pleated, or circular—easy to cut and attach.

4. The so-called *one-piece* dress, 12-17 (Fig. 176), is made of a separate blouse and skirt seamed together at the waistline. It involves more dressmaking problems than the chemise or princess styles, of course depending on the details. Since the basic darts in the blouse are not the same width as those in the skirt especially on figures more or less imperfectly proportioned, this style is the best way of securing a smooth fit in all parts. The princess can fit snugly but usually has to have a certain amount of looseness at the waistline; more vertical seams than the standard six in the princess cut aids in balancing the ease. At its best the waistline seam should be so smoothly fitted and constructed that a separate belt is unnecessary to cover it. The blouse and skirt are two separate units so that one may be full and the other snug; of course, lines in one

must be harmonious with those in the other. A side placket or center front or center back opening is necessary because the waistline is fitted. The one-piece type of dress ranges from such fashion favorites or classics as the shirtwaist or coat dress and the casual afternoon dress to the “after-five” dress, the cocktail dress; formal and informal, long and short dresses in all silhouettes.

5. The *two-piece* dress, 18-23 (Fig. 176), may be a jacket dress, a suit or ensemble, and all the numerous combinations of “separates”: blouses varied as blouse with peplum attached, overblouse, weskit, jerkin, middy, camisole, and shirt; jackets varied as boleros, battle jackets, box jackets, French-dart jackets, dusters, three-quarter and full-length coats, redingotes; all worn with skirts, shorts, pedal-pushers, bloomers, or trousers.

6. Combinations of the above basic types consist of having the front of the garment designed in one cut and the back in another—for example, the front may have a waistline and the back be chemise or princess in line.

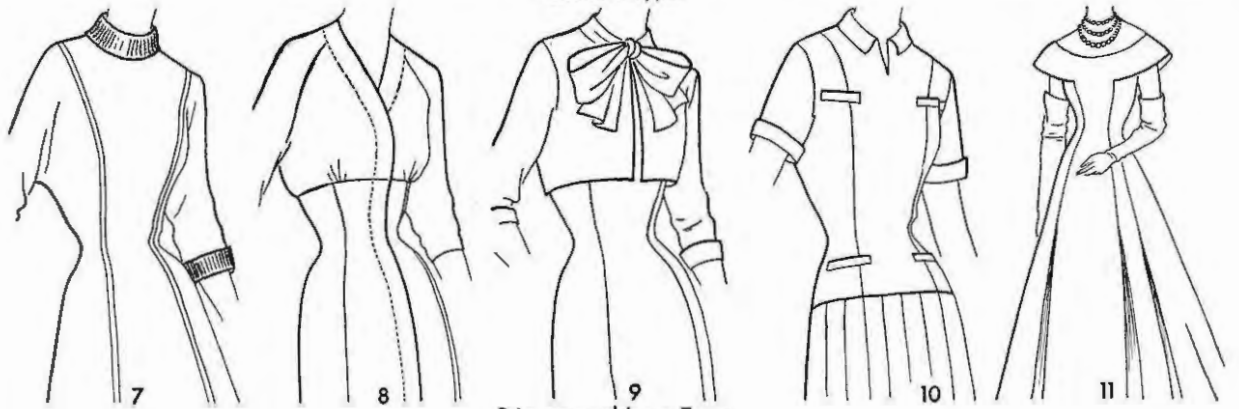
CHEMISE TYPE OF DRESS

The chemise type of dress pattern is the simplest type of pattern—one step removed from the primitive rectangles. Because it retains the basic darts in all parts except the waistline, it fits fairly well. It consists of a one-piece front and a one-piece back. If cut without a seam at either CF or CB it is at its best in the sheath styles, but flare and fullness may be obtained in the usual ways. It is suited to varied materials from cotton house dresses to pleated sheers and heavy silks and wools; and to varied uses from aprons to evening gowns. The tops may be high, low, wide or narrow collared, sleeveless. The waistline may be neatly darted or casually pleated in under a string belt or a wide cummerbund or left to hang free. Many of the wrap-around, easy-to-make sport and house dresses are cut this way. Coats, dusters, smocks, and negligees are developed from this basic pattern, A (Fig. 177).

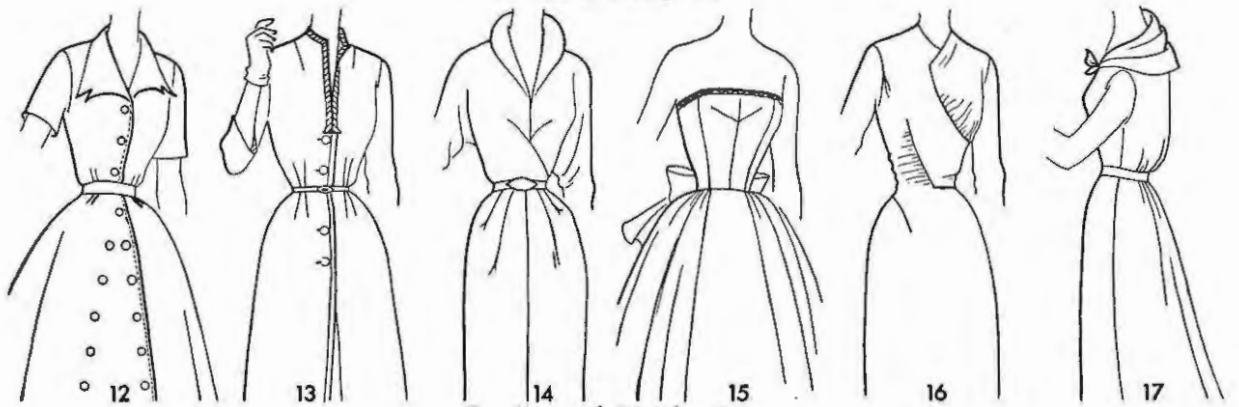
Begin with the basic French-dart jacket pattern (Fig. 89), then extend the CF, CB, and hip seams down the desired length, A. Check to see that the distance from waist to hem line (or floor) corresponds to the measures of yourself or your model (usually CB is longer than CF). Make side and CB flares as for skirt, J (Fig. 157), unless fullness is to be provided otherwise as in pleats, illustrated by dotted lines at CB, A. The amount



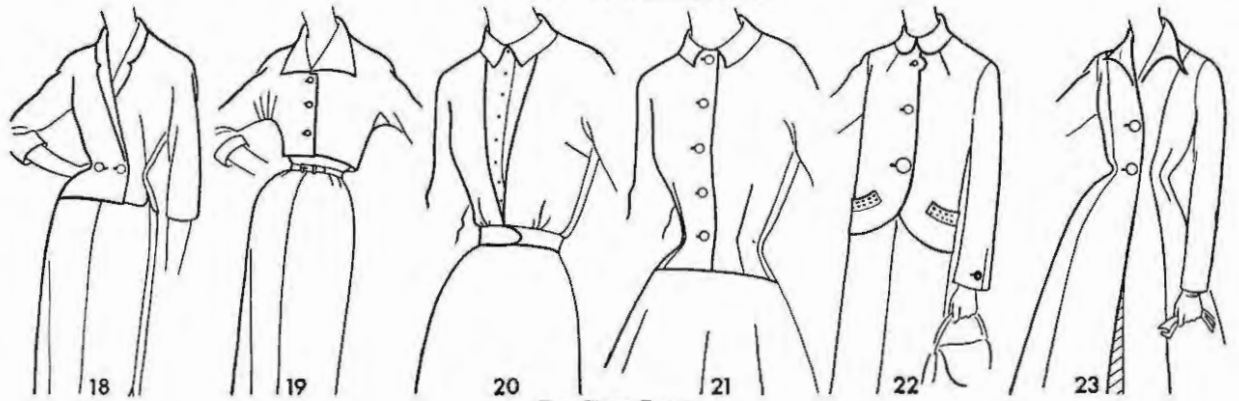
Chemise Types



Princess and Long Torso



One-Piece with Waistline Seam



Two-Piece Types

Fig. 176. Basic cuts in dresses.

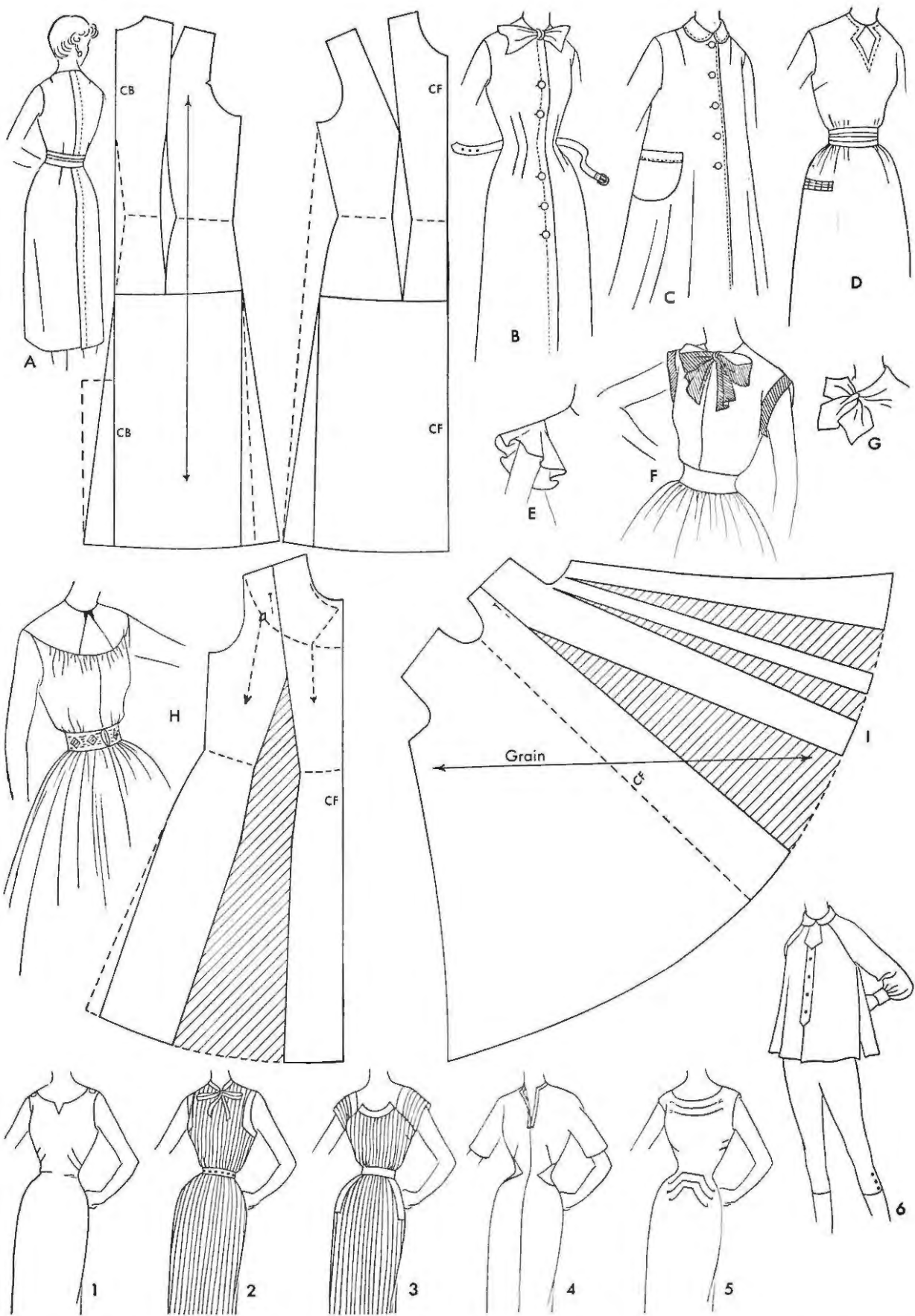


Fig. 177. Chemise dress pattern developed from French-dart jacket; A, back; B, front. C, duster with waist dart thrown into skirt flare. D, waist dart not stitched but crushed under belt. E, F, G, suggested changes. H, basic dart thrown to hem, marked for yoke and slash lines for gathers. I, more flare; may be cut on bias. Fairly standard chemise cuts, 1-6.

of flare is optional.

Use this pattern as you would a blouse pattern for any details desired above the waistline, and apply techniques on skirts for changes in the lower portion.

The chief disadvantage is that the fullness in the skirt must necessarily fall below the fullness line in the blouse and be of the same width. In a standard dress pattern with waistline seam, the blouse dart is wider at the same point than the corresponding skirt dart. For many figures more ease is needed at the bust than over the hips, or vice versa. Standing before a mirror the wearer arranges the fullness into casual folds but unless the belt is a cinch type and tight, the folds do not long remain that way. For casual use, however, the effect is not at all undesirable. Wrap-around effects are developed by extending the side seams of back or front surplice style to tie together, E. Side panels or no side seams, yokes, circular flounces, elastic shirring at waistline, and drawstrings in a casing are some of the common adaptations.

PRINCESS TYPE OF DRESS

The princess type of dress pattern was developed from the French-dart bodice and jacket patterns in Chapter 9 (Fig. 94). If the garment is cut from the basic pattern, the wearer should have good proportions, good posture, and good foundation garments. But the lines may be shifted to more becoming locations as was done in developing well-styled jackets. To avoid accenting the bust, the French-dart line may be redirected

toward the armhole, into a yoke, or modified by more flare or pleats at the seams, 7-11 (Fig. 176).

The Empire top which places a horizontal line, 8 and 9, such as a yoke near the bust serves to break the vertical lines. Whenever this style is in fashion, wide necklines, large bows, wide shoulders, wide collars, and puffed sleeves serve to balance the unbroken line of the princess sheath. Such dresses may be worn also with a belt for a more conservative effect. Without the belt the accent is on a smooth torso and soft roundness at the bustline.

Actually the princess-Empire style is a skirt with a high waistline attached to a blouse with the lower part removed (Fig. 145). Hence, you may begin with a two-, four-, or six-gored skirt pattern and the standard bodice. Make any vertical or diagonal lines of your blouse match those in the skirt at the waistline. Develop each independently and later join together at the waistline. The more vertical lines crossing the waistline the easier it is to unite them, keeping centers, seams, and grain lines continuous.

MIDDY OR LONG TORSO TYPE OF DRESS

In Figure 178, the French-dart or chemise pattern is cut off between the waistline and hipline to give a long torso effect. In itself it is a middy or long over-blouse. Any variety of skirts may be added—gathered, pleated, or circular. If the line is shaped, B, the skirt section will have this shaped cut-out retained in the slashing and spreading so it will fit the original bodice line, as in yoke designing, C, (Fig. 161).

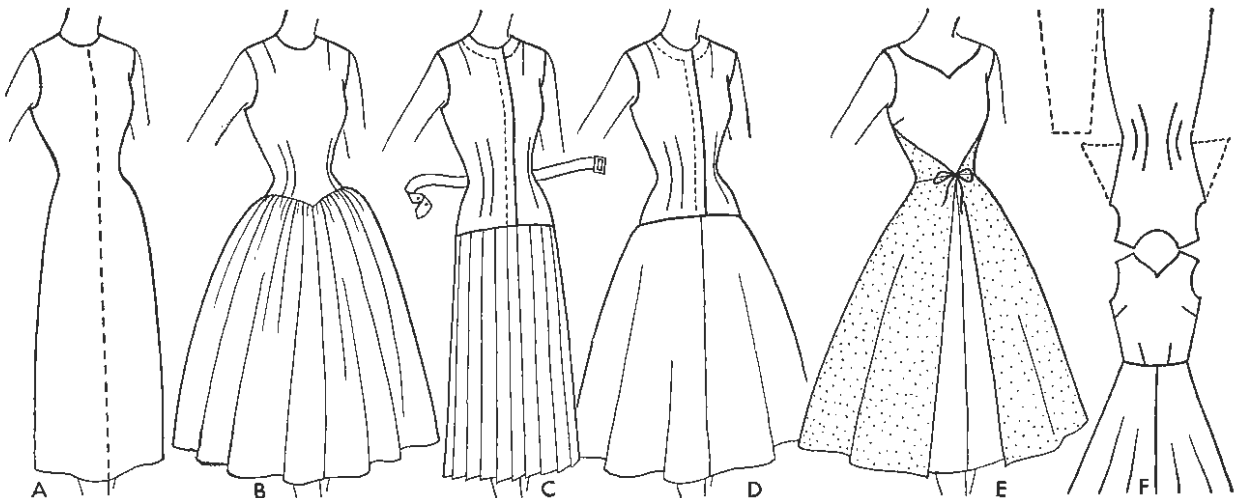


Fig. 178. Long torso or middy styles developed from a chemise cut, A-D. E, tie-around style with back of one-piece chemise cut but front in two pieces.



Fig. 179. A, one piece dress without waistline. B, elevation drawn on basic front and back with darts folded in and sides folded under to give better idea of proportions on model. C, cut apart on style lines. D, bodice slashes for drape; three yoke pieces joined as one for fitted torso; side seams of skirt narrowed, with slight flare added at side front over thighs, much flare in back for sweeping style.

Since the back is straighter, it is often cut in one piece and the front in two, perhaps with a crosswise seam at the waistline in order to achieve a smoother fit. In F, back flared gores were added. If the neckline is cut low enough both CF and CB may be cut on a fold.

ONE-PIECE DRESS WITH WAISTLINE

The so-called one-piece dress refers to the fact that bodice and skirt are sewed together at the waistline, 12-17 (Fig. 176). Previous chapters have developed the techniques and principles for each of the basic parts to make such standard changes in dart and seam locations, closings, yokes, fullness, and gores.

In summarizing, design the one-piece dress by making a copy of half (or whole) front bodice and half (or whole) front skirt. Draw elevations on each to harmonize. Then work separately in developing the details of the two units but constantly refer to and check the other unit. Do the same for the back. Check to have horizontal or diagonal lines of the front bear a pleasing relation to those of the back, actually matching if that is the plan. Pin all parts together to check lines, notches, and spaces preferably on a model or yourself, before completing details, seams, or hems.

Asymmetric dress designs require working with a whole front or whole back. Many of these designs have vertical or diagonal lines intersecting the waistline, 16 (Fig. 176).

The blouse and skirt units may be developed separately then joined as one piece to meet at the waistline (Fig. 179). If much of the waistline seam is thus to be eliminated, begin designing with a princess basic pattern, or the French-dart jacket pattern, or the chemise pattern—which ever one seems to have lines nearest the design in the sketch or elevation. Note similarity of dress (Fig. 179) to costume slip (Fig. 95).

TWO-PIECE DRESS

Essentially the two-piece dress consists of a separate skirt (attached to a belt or body) and a blouse or jacket. All of these have been developed in various chapters of the book. The problem in designing such a dress is to have the parts well proportioned and harmonious, without undue repetition. Jackets based on the French-dart bodice are illustrated in Chapter 9. Cutting a bolero is shown in Figure 180; a box jacket in Figure 57; a long coat in Figure 177.

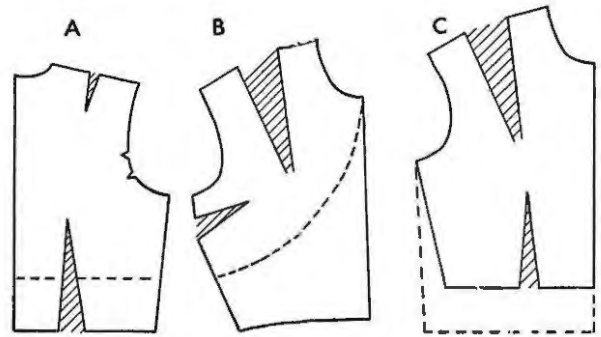


Fig. 180. Bolero cut from basic blouse pattern. A, back with waist dart retained for close fit. B, underarm seam of front to match the back; darts for fitting at shoulder and underarm. C, box jacket with basic dart partly retained at shoulder, part left at waistline for straight loose front.

THE "BASIC" DRESS

The "basic" dress is generally thought of as one which can be quickly changed by accessories to "dress it up" or "dress it down" for various occasions, to give the wearer a feeling of change, and to act as a suitable background for special pieces of jewelry. A slim skirt, neat waistline, and a simple collarless neckline seem to be prime requisites. The length of skirt and sleeve depend on the occasions for which you will need it most. It might be a dinner dress to be worn for years, or it might be a party dress—tight bodice and full skirt; or a shirtwaist type; but probably it should be a more general or casual type than any of these. The popular "little black" dress has been one that could be worn in winter or summer, day or evening, with or without a jacket, jewelry, hat, or furs.

Schoolgirls select sheath and French bodice styles as excellent basics developed in practical fabrics like flannel, denim, linen, jersey, crêpe, and velveteen.

The basic dress should not be too tight, but so cut and fit that it is kind to the bulges or hollows each individual wants to minimize. It must not be too plain—but be somewhat distinctive because of unusual dart manipulation, a slight fullness entering some dart, broken lines in seams or closing and self-fabric fastenings; of course, no sewed on trimmings. The neckline should be flattering for your age and build and be right for your jewelry such as a deep V, a nice oval, or a high draped neckline. An attached collar limits the changes that are possible.

For a woman with a noticeable abdomen, design a dress with normal waistline or slight swathing at the midriff, a shallow hip yoke V-shaped at CF with a few soft unpressed pleats; a shallow

peplum; a small bit of concealing drapery; or a tie slightly to one side.

Crêpe is the ideal fabric, but shantung, linen, faille, and soft woollens are successful. Black is not the only color; consider a soft color that belongs in your basic wardrobe plan, that will be versatile and flattering such as brown, navy blue, teal blue, or olive green. The color should be wearable with your basic major accessories of shoes, gloves, bag, and hat.

The art of accessorizing is to use important or handsome jewelry one, or at least not more than two pieces, at a time. Will the dress look right with your pearl necklace, rhinestone pin, or aquamarine ring? Plan the dress so you will enjoy it one day with a smart contour belt or a fur belt, the next day with a cape, peplum, or apron; another day with a perfectly cut white piqué collar or a sequined dickey, a fur collar or a striped taffeta scarf; or a pink carnation pinned on; with a gray flannel blazer or a kelly green velveteen bolero, a white angora stole, a fur jacket; white kid gloves, or string gloves. There are hundreds of spare parts to be dreamed up, designed, made, or acquired.

CHILDREN'S CLOTHES

The techniques of pattern designing developed in this book are applicable to children's clothes. The darts of course are smaller than in patterns

for adults but many blouses need lengthening at CF or a wider dart for fat abdomens; likewise the front of pants needs lengthening as in skirts (Fig. 5, 14). The seat of pants to accompany this change frequently needs a crosswise tuck or dart to lift the grain so that the back balances the front, but the crotch in both back and front may need hollowing somewhat. Sometimes the blouse or dress pattern is too long on the shoulder or too wide under the arm. The underarm seam in pajamas and coats frequently needs deepening but the sleeve seam lengthened as in Figure 112. In general, it would be better to buy a smaller pattern and lengthen it than to get too large breast measure just for the length.

A mother who understands pattern making will be able to vary a simple pattern that fits her child by the procedures in this book. Consult the Index for any detail such as yokes, collars, hems on sleeves, circularity, puffed sleeves. Consider ease of laundering, ease of dressing, and youthful styles avoiding adult details. For instance a circular ruffle or lantern sleeve is easier to make and launder than the gathered puffed sleeve. Many play clothes, night clothes, and coats will be more wearable if you convert the standard set-in sleeve style to a raglan type. Princess lines, close fitting gored skirts, and convertible collars are not youthful looking on a little child especially one that is thin.

Chapter 15

COMPLETING PATTERNS

In pattern designing all parts are developed without seams or hems until the last step. To complete a pattern seams and hems are added, grain, darts and other construction features are marked and labeled or symbols for them are explained in a construction sheet. Each workshop has its own policy and system. Patterns made for the use of other people require more specific and accurate aids than patterns to be used by one's self or by an experienced model maker in one's own shop. Certain markings are needed by all. Symbols serve as a message of direction or reminder from designer to dressmaker.

Lines drawn (or later printed) on the pattern, perforations, notches, cross marks, and words are used.

Before any of these aids are added, all darts and pleats should be folded in to correct the edge lines and all adjoining seams checked for accuracy of length and matching of centers, and notches or crossmarks.

It is customary to make a muslin copy to check for style and fit. Any changes in muslin must be transferred to the paper pattern.

TRUE-UP LINES

Each time a line is copied no matter how carefully traced or cut, errors or unevenness may develop. In the final copy straighten and refine all lines before adding seams and hems. The yardstick and ruler are most used, but a tailor's square, marked not only in fourths but in thirds and fifths enables one to do more exact drawing. A plastic triangle is excellent for square corners. Use a Dietzgen #17 curve for armholes and necks and

a tailor's curved stick for more flowing curves on hiplines and skirt hems. The curved stick is marked in inches so that a good curve between certain inches on one hip may be repeated on the other hip.

Study the fashion silhouette of today. The shoulder and underarm seams may be straight but be sure of it. It might give a newer look if the underarm arched out slightly. If so, use the curved stick in the final correction.

Recall (Chap. 4) that the designer's basic dart ended on the point of bulge. Check now to decide how much shorter to draw it. Fold in the new dressmaker's dart to make the necessary correction at the intersecting seam. Study the silhouette formed. The fitting dart may need arching, as well as the peplum (Fig. 181). Performations to indicate such curved lines may be long slots so the line is more like a stencil and easier for the operator to follow in stitching. Of course, these style qualities you may have added earlier.

Place shoulder to shoulder (after dart or ease is folded in) to actually check the lengths to make them match exactly; then see if the intersecting neck and armhole curves are good direct lines.

It takes these touches for the pattern to be good, but it always needs a final trial in material—at least before undertaking to use it for cutting a hundred dresses.

LABELING PATTERN PIECES

Each pattern piece may be labeled by name or by number, according to the needs of the operator. For a pattern to be sold every single piece needs a

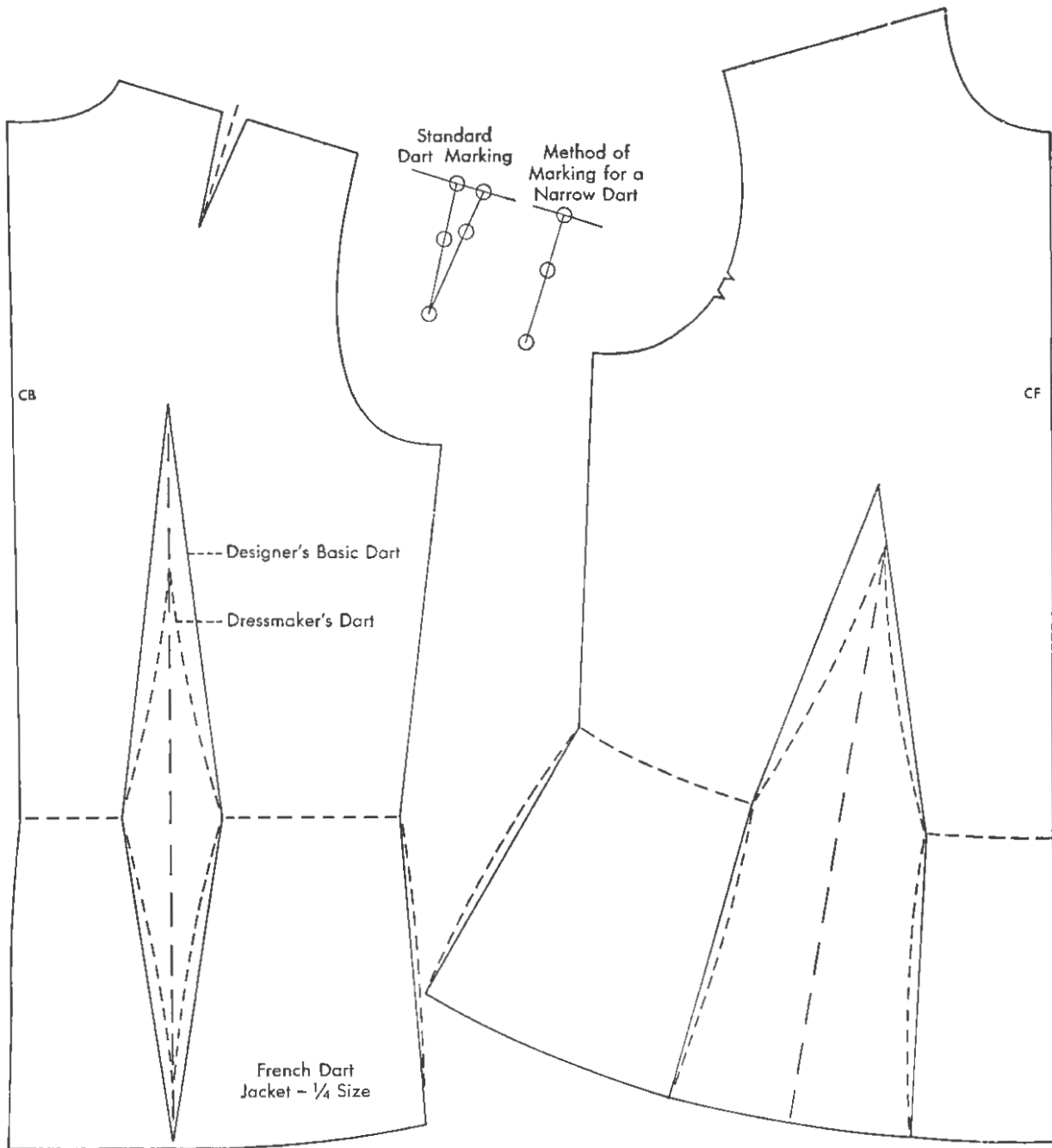


Fig. 181. French-dart jacket pattern (quarter size) with peplum. Darts shortened and curved for the soft rounded look. Narrow dart at shoulder is best marked with line through center only, accompanied by specific directions for stitching.

label; for yourself or a knowing operator only tricky pieces need a label. Asymmetric sections should be labeled right or left to fit together right side up on the right side of the fabric. Any piece that is to be cut in duplicate should be labeled "cut two," or "cut two, two linings and two interfacings."

CONSTRUCTION LINES

Certain lines need to be marked or have perforations punched on them with suitable labels or symbols, explained on the guide sheet to accompany the pattern. Mark the following:

CF and CB of all pieces.

Fold lines near CF and CB.

Lengthwise grain in each piece and crosswise grain at base of sleeve cap.

Fold lines for hems or overlaps.

Fold lines of pleats and the lines they are to match. (Two different sizes of perforations at lines are used in this case with printed arrow or label to indicate which way the pleat turns.)

Dart lines. Both the triangle and mid-line bisecting the triangle to serve as fold line for ease and accuracy of construction; the mid-line only on narrow darts such as the back shoulder or neck.

Lines for location of buttons, buttonholes, waistline, pockets, facings, and other finishing details.

ASSEMBLING MARKS

Notches, cross marks, and perforations (circles, squares, and triangles) are used as messages from designer to worker. They should be used to show exactly where one point matches another, where a placket is to be left open, where gathers begin and end without any chance of confusion. A single notch or groups of two, three, or four notches are commonly used (Fig. 158). Since the designer places these before seam allowances are made, cross marks with a tracing wheel or slits in the seam allowances are more accurate than notches cut either in or out. The greatest error workers make is matching cut edges rather than seam lines.

Therefore, we mark all seam lines on the pat-

tern with special attention to intersections at corners, B (Fig. 182). *If only intersections were marked, garments might be put together more accurately.*

Cutting notches out is a safe procedure for inexperienced workers but they may be more inaccurate. Cutting notches out often interferes with placing patterns so they touch without waste.

SEAM AND HEM ALLOWANCES

Hem allowances at CF or CB and overlaps are part of the pattern designing, well illustrated in Figures 72, 81, and 182. The hem must be folded in place before cutting the seam lines across it. Better results are obtained if it is kept folded in while adding seam allowances then cutting on the new seam line.

The hem allowance at the bottom of a skirt is made by use of a gauge, then the new line trued with a curved stick (Figs. 160 and 162). With forethought enough paper can be provided at the first cutting of a skirt pattern to leave room for this allowance and thus save time and paper to recut.

Darts, tucks, and pleats should be folded in the pattern for seam line correction, in the correct direction, then seam allowances added (Figs. 162, 182).

Cut a gauge for the seam allowance planned and use it to mark all edges extending beyond the line sufficiently that it will intersect the adjoining seam at a true angle, B (Fig. 182).

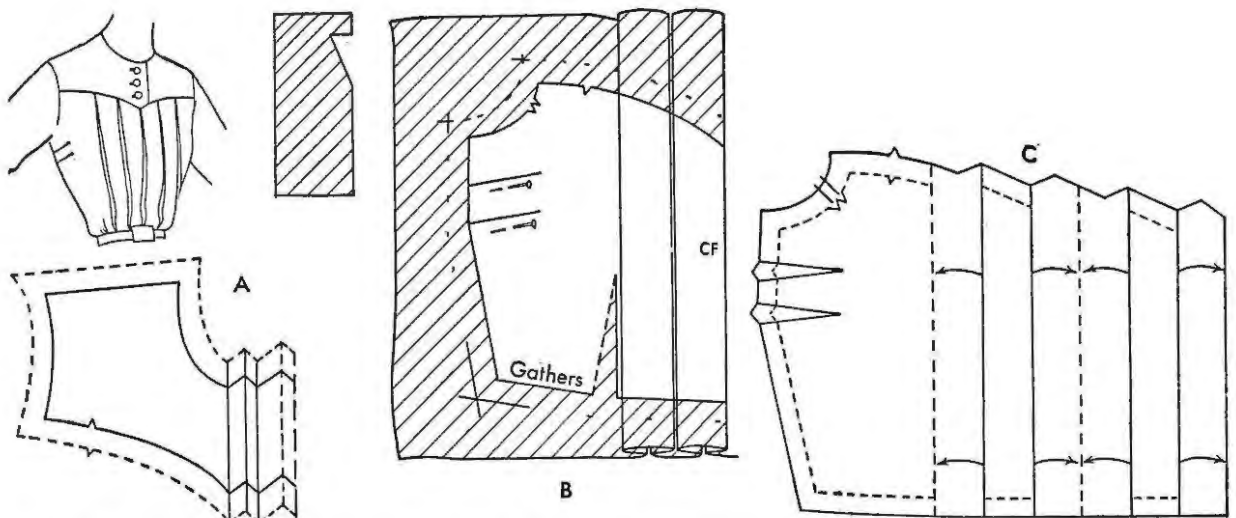


Fig. 182. Seam and hem allowances added with the pleats, darts, and CF hem folded in, A and B. Note intersecting seams at corners extended to make true angles. Irregular edges, A and C, will refold to retain original smooth seam lines.

Each factory or workshop has its own specifications for width of seam allowances. Make seams which may require fitting 1" wide, others $\frac{1}{2}$ "– $\frac{5}{8}$ ". On such simple pieces as ruffles, belts, and pockets $\frac{1}{4}$ " seams may be sufficient and $\frac{3}{8}$ " for a stitched fell. But it is confusing to the average worker to have different widths in the same garment. Seams that are to be finished narrow should be cut wide because it is easier to guide the machine and control grain especially on bias or curved seams—the trimming requires extra time and cloth but the seam sets better and is more accurate in line. Necklines and other curves are more easily stitched with the presser foot as a gauge, hence $\frac{1}{4}$ " seams might be advisable in such cases. Slide fastener plackets require at least a $\frac{3}{8}$ " seam, preferably $\frac{3}{4}$ "–1".

GRAIN LINE

In each unit or pattern designed there has been a discussion or directions for selecting the grain line. In summary, we repeat that the lengthwise grain, usually the firmest heaviest yarns in the cloth, should be so placed as to hang vertically at right angles to the floor, generally at CF or CB and center of the sleeve. Stripes are sometimes cut the other way for design interest. Garment or true bias seam lines tend to ripple or flare away from the body (Fig. 156). Such pieces as the French-dart bodice and gores should have the lengthwise center of each section on the lengthwise grain.

The grain line should be drawn *full length* of the pattern, not a short length with three perforations 6" apart or a 12" line with arrow as in so many commercial patterns. The ends of the pattern have a way of slipping off line when pinned to cloth.

Marking for Bias-Cut Garments

Garments may have parts cut on the bias to fit more snugly, to create a more graceful draped fold or to secure a V or herringbone effect at a seam. The line on the pattern usually calling for lengthwise grain is to be placed on a true bias line of the cloth. (One marks a line of true bias on the fold created by making all the lengthwise threads parallel with all the crosswise threads.) To mark the pattern correctly, fold the original lengthwise grain line or CF or CB line over on itself, then bring the fold over to these lines. The

second fold line has bisected a right angle giving a true 45 degree angle line. Instructions on this line would read, "Place on lengthwise grain." There are two of these diagonals in each piece of pattern; you have to decide which one is to be lengthwise grain and which crosswise. In which direction on the garment do you want the stripes or dominant yarns to run?

ECONOMICAL PATTERN PLACEMENT

In making a pattern layout, we aim to:

1. Have all pieces cut correctly as to grain and design in cloth in order to retain the true set and style.

2. Have as few waste pieces as possible, or to have a few large pieces or one large piece left over for other uses rather than many small ones. Saving yardage is important to the individual consumer as well as the factory.

Some guiding principles are:

1. Have pattern completely finished (grain line extended the entire length of the pattern, and so forth). If the policy of the user is to have notches cut out have them so cut, because enough room between adjoining pieces must be allowed. Would clips be as satisfactory, or chalk marked through perforations?

2. Never cut any pieces until a complete layout provides for all pieces.

3. Temporary layouts must be as carefully checked for grain as if they were permanent, or actual spaces may not be large enough for other pieces to be fitted in later.

4. A layout for an individual garment as planned by a commercial pattern company or for home use is different from a factory layout where sizes 12, 14, 16, and 18 are placed together on the same stack of cloth perhaps 10–50 yards long. In factories, layouts may be planned by using small patterns reduced in scale on paper cut to scale—the same principles would apply. In a garment factory an entire front or back pattern is cut instead of just half, since the fabric is spread out full width on the table. In asymmetric designs it is always necessary to have a whole piece. Small pieces like pockets, collars, and cuffs are usually whole instead of half. There must be a pair of sleeves—mates not duplicates—for each garment.

5. Begin with largest pieces at opposite ends of the cloth and work toward the center, fitting

in smaller pieces. This scheme leaves all the leftovers in one large section rather than several small ones.

6. Place the wider end of the large pieces at the cut ends of the material. This leaves a wider space rather than a "bottle neck" open along one side in which to slide the narrow end of another piece of a similar shape.

7. Place all pieces actually touching (unless notches, seams or hems are yet to be allowed in your free-hand work room)!

8. "Dovetailing" refers to fitting pieces similar in shape next to each other as is done in jigsaw puzzles. A pointed yoke may fit better next to the pointed part of the skirt to which it will later be joined than it will around the curve of a sleeve cap. The narrow end of a gore often fits beside the wide end of another gore, cut on the same angle of bias, but this device cannot be used if the fabric has a nap or up-and-down design.

9. When only one garment is being cut from a dress length, the fabric is usually folded lengthwise; then as many pieces as possible are placed along the selvage at first to save the folded edge where it is actually required.

10. Refolding cloth is necessary for certain pieces. Make it exactly wide enough for the pattern piece throughout its length leaving all the excess on one side.

11. To insure cutting a pair, cut both pieces at the same time by having right sides folded together; or cut a duplicate pattern, properly labeled, right or left.

12. Several plans may be tried:

Cloth folded lengthwise selvage to selvage.

Cloth opened up and folded crosswise torn end on torn end.

Cloth opened full width on the table right side up for ease in later tracing on carbon paper and for locating fabric design better; for use with duplicate or full width patterns and especially for asymmetric designs.

Cloth folded for part of the layout and opened out for the remainder.

13. If the yardage is not sufficient decide whether to buy more fabric, change the grain line on certain sections, piece some sections, shorten pieces, narrow some pieces, reduce the seam allow-

ances, supplement with contrasting fabric as in facings, collars, or godets.

Since grain line is all important in styling the designer who made the pattern should be consulted before a single pattern piece is changed. The designer might make an actual improvement through restyling, whereas another person might really ruin the style by merely changing the grain just to fit a pattern piece on the cloth. It seems that a designer should supervise or at least check all layouts. When making a pattern for yourself you are in a position to decide on the grain when actually placing on the fabric.

14. If the trial layout is used as a method to estimate the yardage to buy, several layouts as in Step 12, should be tried until scraps and yardage are reduced to a minimum. After several such experiences the beginner designer will try to cut pieces that actually fit the cloth. It will be important to the designer to know whether she is cutting a princess dress pattern for a 35" or 39" width of fabric.

For commercial pattern layouts, it is necessary to show layouts for each different size, for different fabric widths, for different designs or views, and for fabric with nap or distinct up and down.

Commercial pattern guide sheets contribute much worth while information to both the amateur and the experienced user. Some of it is too stereotyped; for example, detailed instructions on making bound buttonholes when the pattern doesn't call for such a finish. It would be much more to the point if directions were given as to how much pinning, basting, or stay-stitching to do before fitting.

Pattern construction sheets elaborate on the making of the garment with the proper joining of seams according to notch or cross markings, the making of darts, pleats, gathers, and other details. Step-by-step organization should be based on simple but good dressmaking procedures—how to do a professional job, when to press, what to do next. The designer must be a party to such planning. Dressmaking experience for her is invaluable. This book has only suggested such details when they were vital to cutting the pattern. Chapter 16 briefly outlines the most commonly used principles of clothing construction.

Chapter 16

PRINCIPLES OF DRESSMAKING

In the following principles of dressmaking we have stated the effect first, followed by the cause, but you may reverse the statement if you like. We placed the effect first because it states the problem you want to solve or the standard you want to achieve. The second column tells how to do it or when to do it. If we left off the "effect" column the principle would become a rule, law, or precept, very good in itself, very useful but it would be the "how" without the "why."

For example, the question is often asked, "On which side of the machine is the flat side of the needle placed?" If the answer is "to the right," we soon learn that the inquirer forgets and besides on another model of machine it is not so. Hence, the answer was not a principle, it was only a rule for that one kind of machine. But if the answer is, "In setting a needle, have the grooved side on the side of the needle bar having the last thread carrier," we still have a rule but a better rule than the first answer because it fits all machines, it is a generalization. To convert it into a real principle we need to complete it by saying, "otherwise the thread will not lie in a channel, the threading will be incomplete and the tension affected." Thus, first we have the cause and last the effect—the law

and the reason for it, and the student is more likely to remember. She, thus, has a tool for future use.

A principle may be defined as a fundamental truth which has wide application, which has a cause-and-effect relationship clearly stated or implied, from which other principles may be derived, and the following of which yields consistent fairly certain results.

Students and teachers are too prone to be satisfied with the rule or statement and neglect the reason, but we will find it easier to find a rule to follow if we decide what results we want, hence in this summary of dressmaking principles * we have placed the effect or standards to be desired first. You should practice quoting them both ways. There are others to be worded. Some of these could be reduced or combined with others. Each one needs explanations, illustrations, and applications. In making decisions in the sewing process, see if you have a good principle to reinforce your choice.

* Special acknowledgment is hereby made of the cooperation of Mrs. Lila A. Kinchen, assistant professor of clothing and textiles, Texas Technological College, in the development and application of these principles.

BASIC PRINCIPLES OF DRESSMAKING

Effect Sought Or the Reason Why	The Cause Or What to Do—The Rule to Follow
1. To save time, energy, and resources, to save confusion and error, and to create a satisfactory product,	organize work by: <ol style="list-style-type: none"> a. doing like jobs in a group, b. handling work as little as possible, c. completing one unit before going to another.
2. To keep grains of fabric at right angles to each other so that garment will fit well and stay that way,	<ol style="list-style-type: none"> a. prepare fabric by cutting or tearing along crosswise ends of cloth: by pulling cloth diagonally on true bias throughout its length, in direction of short corners only; or by dampening and pressing straight; b. have grain line of pattern on grain line of fabric; c. stay-stitch circumference, crosswise, placket and other tricky seams or corners before joining; d. pin or hold together to baste for fitting or to stitch so that notches and intersecting seams match.
3. To secure a straight-line effect and to increase durability;	because of the law of gravity, cut the part that is to hang straight down on the heavier grain (usually the warp);
(inversely, to accent a rounded, bulgy effect,	cut the part that is to hang down at right angles to the stiffer threads.)
To secure a rippled or flared effect,	cut the part or line that is to flare on the bias.
4. To make a pleasing, orderly design,	stripes, plaids, and other motifs should match or balance.
5. To insure an adequate amount of cloth and accurate cutting (grain perfect with a resulting good fit),	make a temporary placement of <i>all</i> pattern pieces before cutting any; then fasten each piece to cloth with few pins on the grain line back far enough not to interfere with tracing.
6. When cutting two layers at once, to facilitate marking and to simplify assembling of garment at center front or center back seams,	have material folded wrong side out before placing pattern.
7. When sections must be cut separately from one layer of cloth, to insure cutting one each for the left and right sides and to facilitate marking,	leave first section pinned to pattern, place that section of fabric so that like sides of fabric are facing each other, with pattern on top, and cut second section.
8. To create a true bias, which is the most pliable direction in the fabric,	fold the cloth so that lengthwise and crosswise threads coincide.
9. To have seams in bias strips inconspicuous and non-stretchable,	trim and join ends on the grain, preferably along the heavier grain or a striking design line.
10. When the lower edge of a blouse, skirt, or standard sleeve either rises above or falls below the standard horizontal level because of a body bulge or hollow directly above,	the pattern should be altered for <i>both length and width</i> at or near the bulge or hollow; or else seams and darts must be similarly adjusted in fitting.
11. To alter a pattern at the place of need (bulge or hollow) and in order not to tamper with lines created by the pattern designer,	make changes: <ol style="list-style-type: none"> a. within the pattern, b. between points of articulation, c. perpendicular to the lengthwise grain line to change length, or parallel with the lengthwise grain to change width. d. at places which improve or preserve design details. e. with the lengthwise and crosswise lines intersecting at the point of trouble (bulge or hollow)—slash and spread for a bulge; tuck for hollows.
12. To insure a satisfactory garment when finished and to save time,	all units (pinned or basted) should be tried on together and fitted before stitching.
13. To check and secure a pleasing appearance in the garment with a minimum number of fittings (to save time and confusion),	check for <i>width</i> at first fitting (with details and silhouette seams basted, but circumferences only pinned) and check for <i>length</i> at second fitting (with circumference seams basted). Other fittings may be needed to approve the basic two and arrange accessories.

Effect Sought
Or the Reason Why

The Cause
Or What to Do—The Rule to Follow

- | | |
|---|---|
| 14. If one has a well-sized and well-fitted pattern, to save time, | details like darts within the front and back of blouse and skirt may be stitched to complete units before basting and fitting silhouette seams. |
| 15. In order to create a flat smooth seam without a tuck or fold in it, to save time, and to avoid damaging garment in pinking, | <i>finish</i> completely (by removing basting, trimming, pressing) one line of sewing before crossing with another. |
| 16. In order to keep the edges or ends smooth and unfrayed and to simplify fitting adjustments, | <i>finish</i> lengthwise seams (darts and pleats) before beginning circumference lines. |
| 17. In order to have the opening a durable, smooth, continuous lengthwise line with no seams showing at edges, | <i>lengthwise closings</i> (as hems or plackets) should be made <i>after</i> the circumference seams are finished. |
| 18. To avoid a small tuck or crease along a plain seam, | the first step in pressing is to press it open, whether it is finished opened or closed. |
| 19. To reduce the effect of width in a seam, to make dry cleaning and laundering easier, | unless the fabric is very bulky, usually finish seams pressed together. |
| To reduce the bulk when one side of the seam is full (gathered, pleated), | press seams together away from the fuller, bulkier side. |
| To make plackets lap front over back, to fill in hollow at front of shoulder, or to follow grain in pressing closed seams or derts, | usually press silhouette seams toward the front, vertical darts and seams within a section toward the center of the garment; horizontal darts and seams within a section down because of their natural weight (law of gravity). |
| 20. To reduce the bulk in seams and wide darts of heavy fabrics and to avoid imprints, | press them open; or if pressed in the same direction, grade by trimming one 1/16"-1/8" narrower having the wider one next to the outside of the garment. |
| 21. To keep <i>enclosed</i> seams flat and smooth, | trim to 1/4"; or 1/8" for under-stitching; or exact width of welt for welt seam. (Pinking is superfluous and spoils a good line.) |
| It is easier and quicker, | to press them open first, then under-stitch; or wiggle out to edge and baste before pressing or top stitching. |
| Double layers are easier to iron and stay in proper place, | if they are edge stitched or under-stitched (belts, collars, pockets, facings). |
| 22. To look well tailored and stay that way, without any raveled endings, puckered corners, or visible knots, | stitching, as well as stay-stitching, should be with the grain; uniform endings neat and strong; corners pivoted. |
| 23. When pinning and hand basting two edges together, one of which is fuller than the other, in order to see the difficulty and to control it under your thumb, | hold the full or bias side next to you; use smaller stitches. |
| When machine stitching without basting, | have the bias seams (but not gores) first stay-stitched with the grain, then have pins, or hold your fingers, back from the edge that is to be eased in along the grain. |
| 24. To avoid wrinkling the work and awkwardness in pinning and hand sewing, | hold the bulk of the work down or toward you with edge of seam or hem (the small amount) up in your hand. |
| 25. For ease and speed if right-handed, (if left-handed, reverse) | plan work to progress from right to left for ordinary sewing (exceptions: outline, cat, and blanket stitches). |
| 26. To keep the hand graceful and to secure straight sewing lines in hand sewing, | use the side of the thimble, not the end to push the needle; |
| the finer the stitches, | the closer the fingers and thumbs must be to the point of the needle. |

Effect Sought Or the Reason Why	The Cause Or What to Do—The Rule to Follow
27. To be sure of a smooth join when pinning a pattern to cloth or two pieces of cloth together for basting, or during right side fitting,	have pins at right angles to edge.
To establish new guide lines in fitting,	place pins parallel to and on the new line.
28. To keep seam lines at inside corners and curves (concave) smooth and as planned in shape and size,	<i>because the inside line of concentric circles or other shapes is smaller than the outside,</i> slash them before turning under or back.
To be safe,	it is wise not to slash until after stay-stitching and fitting.
To avoid damaging pattern or fabric before the lines are approved,	when testing patterns or basting for first fitting, do not turn under corners and curves but lap and pin one section over the other, seam line on seam line.
To make outward turning corners and curves (convex) in seams lie flat without pleats or bulk when pressed back,	remove wedges and miter corners and trim seams.
To obtain a smooth, unpuckered bias binding,	ease strip around convex curves—slightly stretch on concave curves.
To obtain a smooth, unpuckered bias facing,	stretch around convex curves, ease around concave curves.
29. To avoid wrinkles on outside of garment finished with an inside facing,	be sure that facing matches grain and shape of garment and that it is made smaller by taking slightly deeper seams.
30. To prevent a facing from showing around the edge being faced,	<ul style="list-style-type: none"> a. cut it slightly smaller; b. stitch it, not on the seam line but nearer the raw edge; c. clip inside curves and corners, notch outside curves and corners, trim to $\frac{1}{4}$"; d. after turning, work out the seam so that facing is back $\frac{1}{16}$"–$\frac{3}{32}$" from edge. Baste firmly near edge; or under-stitch; e. press—if possible edge stitch. Tack raw edge down loosely so facing fits exactly. Basting in d is more important than basting in b.
To under-stitch a facing that has a corner,	first stitch the longer side only and under-stitch it, before seaming the shorter side.
31. To preserve gathers, in pressing,	nose the point of the iron up to the seam.
32. To shrink out fullness,	keep the side of iron parallel with stitching of the seam.
33. To be sure that hand hemming on a band or binding does not show through on outside of garment,	catch the hemming only in the machine stitching of the seam.
For durability,	make the stitches about $\frac{1}{4}$ " apart or less and not slip stitches.
For speed,	use slant hemming <i>not</i> vertical hemming stitches.
34. To obtain buttonholes adequate in length, that keep their shape, stay fastened, and permit buttons to rest on center of garment,	<ul style="list-style-type: none"> a. have the minimum length equal the diameter plus the thickness of the button; b. have the length of buttonhole run in direction of strain; c. have the end of buttonhole extend over center, toward closing, a distance equal to half the width of the shank of the button.
35. To insure fasteners being secure yet inconspicuous,	attach buttons with a shank; snaps with ball side on overlap, sewed over edges; hooks at ends as well as in the eyelets; curved eyes only when two edges meet and straight eyes when edges overlap.

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